The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 774.---Vol. XX.] LONDON, SATURDAY, JUNE 22, 1850. [Price 6d.

Contract for Coals—General Post-Office in France.

NOTICE IS HEREBY GIVEN, that SEALED TENDERS for the SUPPLY of ELEVEN MILLIONS KILOGRAMMES of COALS, required for the use of the Government Mail Packets in France, will be publicly received and decided upon at the General Post-office, Paris, on the 3d of July, 1850, at Two in the afternoon.—The schedule of particulars can be seen at the French Consul General's Office, 47, King William-street, City, from Twelve to Four o'clock.—June 20, 1850.

GLAMORGANSHIRE.

MR. ROBERT EVANS will SELL, BY AUCTION, at the Bridgewater Arms, NEWBRIDGE, on Saturday, June 29th, 1850, between the hours of Two and Three o'clock in the afternoon, subject to conditions of sale to be there produced, all that very valuable FREEHOLD FARM and LANDS, called IRW YCHA, situate in the Rhondda Valley, in the parish of Llantrissent, in the county of Glamorgan, containing by estimation 71 acres 1 rood 27 perches, or thereabouts.

The above farm abounds in coal and iron mine, and has opened thereon, but not at present worked, a quarry of excellent paving stones, which are beautifully veined, and when polished become a good substitute for marble; and has passing through it a railway, which connects it with the Taff Vale Railway and the Glamorganshire Canal, from which it is distant about two miles.

The tenant, Mr. Thomas Edwards, will show the premises; and further particulars may be had of Mr. Cuthbertson, solicitor, Neath.

CARMARTHENSHIRE.

FREEHOLD ESTATES, containing incalculable quantities of COAL and IRON MINES.

TO BE SOLD, BY PRIVATE CONTRACT, the following several FREEHOLD MESSUAGES, TENEMENTS, LANDS, and HEREDITAMENTS, together or in lots—viz., in the parish of LLANELLY:—

LOT I.—All those several MESSUAGES, TENEMENTS, and LANDS, called KILFERY-RECHOF and NEW INN, with the APPURTENANCES, containing by admeasurement 103 acres, or thereabouts, be the same more or less.

LOT II.—All that other MESSUAGE, TENEMENT, and LANDS, called FOY-VACH, and the WATER CORN GRIST MILL, called FOY MILL, containing by admeasurement 30 acres, or thereabouts, be the same more or less.

In the parish of LLANGENDEIRNE.

LOT III.—All that MESSUAGE, TENEMENT, and LANDS, with the APPURTENANCES, called TIRUCHOF (otherwise ROSEFACH), containing by admeasurement 16 acres, or thereabouts, be the same more or less.

The above property is within a short distance of the Kidwelly Canal, and distant from Pembrey Floating Harbour 8 miles, where the present demand for coals far exceeds the supply, and near to the South Wales Railway.

Further particulars can be obtained on application to Dr. Laurence, Carmarthen; or to Mr. John Griffiths, Aberguilly, near Carmarthen.

Carmarthen, June 17, 1850.

TO CONTRACTORS, BUILDERS, AND OTHERS.

TO BE SOLD, BY PRIVATE CONTRACT, the ENGINES, MACHINERY, &c., which have been used in the erection of the Britannia-bridge, consisting of ONE 40-horse HIGH-PRESSURE ENGINE, with 18-inch cylinder, and 3-feet 6-inch stroke, with boiler complete, drum and hoisting gear; ONE 25-horse HIGH-PRESSURE ENGINE, with 14-inch cylinder, and 2-ft. stroke, with portable boiler complete, drum and hoisting gear; travelling cranes, landing cranes, setting machines, single and double purchase crabs, blocks, chain and tackle of every description, and of first-rate quality.—Application to be made to Messrs. B. J. Nowell and Co., at the works, Britannia-bridge, Bangor, North Wales.

GLAMORGANSHIRE—SOUTH WALES.

TO BE LET, all the VEINS of COAL under TYNYCAIA and GWAENGWYLOFA FARMS, containing about 160 acres, situate in the parish of LLANILED, 5 miles from the increasing town of Bridgend, and 13 miles from the important town and port of Cardiff. The 9-foot and the 6-foot veins of coal have been found under the property, and the former is at present worked on a small scale, and the 5-foot vein and the Cribwr-fawr vein (usually 9 feet thick) are supposed to run under the whole extent of the land. The four veins may be worked by a shaft 80 yards deep.

The situation offers every facility for working a colliery on a large scale, as the South Wales Railway, now about to be opened, passes over a portion of the land, within 300 yards of the engine pit.

The coal raised at present is of excellent quality, and the small coal, being perfectly free from sulphur, makes a clean and superior coke.

There is a high-pressure steam-engine, 16-inch cylinder, 4-feet stroke, with a 10-inch forcing pump, 80 yards of pipes, a small water-wheel, a quantity of tram-plates, and various other articles, which all may be taken at a valuation. A strong stream of water, with a fall of about 20 feet, bounds one side of the property, the use of which will be granted with the minerals.

For further information apply to Mr. David Davis, Cwm, near Cardiff; or to John Randall, Esq., Bridgend, Glamorganshire.

VALUABLE COPPER AND LEAD MINE TO BE LET ON LEASE, for 31 years.—This property has been procured at considerable expense from the Commissioners, on the Mountain of Mallane, in the parishes of Celycwm and Caye, in the county of Carmarthen. The copper lode is about 3 feet wide, composed of gossan and spar, and from 5 to 8 inches of copper lying on the side. The hill is above 10,000 acres, consisting of several lodes of copper, which have never been worked, but are considered worthy of a trial.

For further particulars apply to Isaac Davies, Melmyrhas, near Llandovery, Carmarthenshire.—The proprietor proposes keeping a few shares for himself.

EAST OF SCOTLAND MALLEABLE IRON COMPANY.—The Directors have been authorised to RECEIVE OFFERS for the PURCHASE, or LEASE, of the MALLEABLE IRON WORKS at DUNFERMLINE—comprising a STEAM-ENGINE, of 80-horse power, working the machinery, consisting of FORGE and 2 PUDDLE BAR TRAINS, of 16 inches diameter, HAMMER and PATENT SHINGLING MACHINE; also a 16-inch MERCHANT BAR or RAIL MILL, a 12-inch MILL, for ordinary sized merchant bars, and an 8-inch GUIDE MILL, 13 PUDDLING FURNACES, and 6 MILL FURNACES—the whole capable of producing 120 tons of bar-iron weekly.

A REFINERY STEAM-ENGINE, of 45-horse power, with blowing apparatus, complete, and two fires erected.

A complete SET of WORKSHOPS, containing a 20-horse power STEAM-ENGINE, driving a powerful roll-turning lathe, and blowing apparatus for smiths' fires.

A PUMPING and CLAY MILL STEAM-ENGINE, of 16-horse power, used for the manufacture of fire-brick, and pumping water for supply of engines.

Also, in course of erection, a STEAM-ENGINE, of 80-horse power, intended to drive the mills apart from the forges, having strong cast-iron framing laid down, and machinery suitable on the premises, which could be brought into active operation in a short period.

Together with the necessary TOOLS, LOOSE MACHINERY and STOCKS, of different kinds.

Offers will also be received for the PURCHASE of the ESTATE of TRANSY, consisting of about 107 imperial acres, with elegant MANSION-HOUSE and PLEASURE GROUNDS, situated about half a mile to the east of the town of Dunfermline.

Applications may be made to Mr. James Inglis, Chairman of the Company; or to Johnstone, Russell, and Craig, writers, Dunfermline.—Dunfermline, March 15, 1850.

LONDON AND NEWPORT IRON-WORKS, NEWPORT, MONMOUTHSHIRE.—The PROPRIETOR of the ABOVE WORKS, finding the great and increasing demand for his PATENT FOUNDRY FURNACE to claim entire attention, he is induced to offer his very valuable and convenient FOUNDRY PREMISES FOR SALE, together with the STOCK and PLANT, complete, and ready for immediate occupation; the growing prosperity of Newport, and its increasing facilities by railway, render this an opportunity seldom occurring; the purchasers will also be entitled to the manufacturing privilege of South Wales for the "Patent Furnaces:" from 50 to 100 tons may be done on the premises with ease; there are three powerful cranes, and a "Patent Foundry Furnace" erected, which has been in successful operation for the last 6 months.

For further particulars address JOSEPH DEELEY,
London and Newport Iron-Works, Newport, Mon.

STIRLING'S PATENTS FOR IMPROVEMENTS IN IRON.—1. TOUGHENED CAST-IRON, which is double the strength of ordinary cast-iron, and only from 10s. to 12s. per ton extra.

2. ANTI-LAMINATING RAILS and TIRES for WHEELS at an extra price of about 7s. 6d. per ton. Also IMPROVEMENTS in the MAKING of WROUGHT-IRON—saving one process to the manufacturer.

Further particulars and terms of license, &c., may be obtained on application to Mr. Jee, civil engineer, No. 6, John-street, Adelphi, London; also from the London agents, Messrs. Gardner and MacAndrew, 27, Queen-street, Cheapside; and the Scotch agents, Messrs. W. and J. H. Johnson, 166, Buchanan-street, Glasgow; and 20, St. Andrew's-square, Edinburgh.

THE COMMITTEE OF THE GLAMORGANSHIRE CANAL NAVIGATION hereby give Notice, that they are desirous of adopting a PLAN or DEVICE for LOADING COAL INTO VESSELS LYING AFLOAT in the CANAL, FROM BARGES ALONGSIDE, and that they will give a PREMIUM of ONE HUNDRED GUINEAS for the BEST MODEL or EXPOSITION of such PLAN or DEVICE, provided it meets with the approbation of the committee. And Notice is hereby also given, that the committee will meet on the 31st day of July next, at the hour of Eleven in the forenoon, at the Cardiff Arms Inn, Cardiff, to receive and examine such Models and Expositions as may then and there be presented to their notice; and the principal freighters of coal upon the said Glamorganshire Canal Navigation are hereby invited to attend the said meeting, and inspect the said Models and Expositions. It will be necessary that all Models, Plans, and Expositions be delivered at the Cardiff Arms Inn by Nine o'clock of the morning of the 31st of July; and applications for further information will be attended to by JOHN FORREST,
Clerk to the said Navigation, at the Navigation House, Cardiff.

Cardiff, June 5, 1850.

MR. JAMES CROFTS, of No. 4, KING-STREET, CHEAPSIDE, takes the liberty of soliciting the attention of CAPITALISTS to the MINING INTERESTS of GREAT BRITAIN, as offering, at this time, the SAFEST MEDIUM OF INVESTMENT of any adventures of an acknowledged speculative character, and TENDERS his SERVICES generally for the PURCHASE and SALE of MINING SHARES.

Mr. CROFTS has at present FOR SALE SHARES in most of the MINES of repute, comprising the Tavistock District, and also in Roche Rock, West Providence, Esgair Llee, Cwm Erfin, Bodcal, Llwynmaiees, Wheal Trescol, West Tolgus, Grambler and Saint Aubyn, Wheal Vincent, Wheal Sarah, and Tokenbury; and is a BUYER in Lamberooo Wheal Maria.

☞ Mr. C. is NOT A DEALER, &c., in SHARES for his own account, but only for principals.

EAST CORNWALL ASSOCIATION, FOR MINING AND OTHER PURPOSES.

PROSPECTUS.

The objects of the association will be chiefly—the Purchase of Mine Shares—to take Mine Setts, and develope the Lodes—to Work Mines—to Purchase Mines about to be abandoned for want of Capital, and to Purchase by Private Contract, or otherwise, Mine Materials.—The Association will consist of three classes, of 64 members in each class:—

The First Class will deposit	£1	0 0 every month.
The Second Class ditto	0	10 0 ,,
The Third Class ditto	0	5 0 ,,

The monthly deposits of each class to be deposited in a respectable bank at interest, or be employed by the managers in accordance with the objects of the Association.

Each member will be entitled to the same proportion of the interest or profits accruing to the Association, as he has deposited.

As soon as 20 applications have been made in each class, a meeting of the said applicants will be convened by G. W. Pickthorn, Esq., Secretary pro tem., for the purpose of electing a president, three vice-presidents, and 15 associates, and these will conduct the business of the association, and remain in office for six months, after which the whole body of the Association will exercise the right to nominate and appoint all the aforesaid officers, together with the secretary, annually, in the manner following—viz.:

The President to be elected by the whole body, from the first class.
One Vice-President by the whole body, from each of the three classes.
Eight Associates by the whole body, from the first class.
Four Associates by the whole body, from the second class.
Two Associates by the whole body, from the third class.
The Secretary to be appointed by the whole body, from either class of the society.

All these officers and associates to be eligible for re-election.

No officer to be entitled to a remuneration except the secretary.

Application for a share in either class to be made in writing, containing the name and address of the party, to G. W. Pickthorn, Esq., the secretary pro tem.

The first applicants will, in every case, have the preference.

Callington, May 27, 1850.

FORM OF APPLICATION.

SIR,—You will please to enter my name as a member of the East Cornwall Association in the —— Class.

To G. W. Pickthorn, Esq.
Moditon Cottage, Callington.

Name.....
Profession.....
Residence.....

SNOWDON COPPER MINE, in the parish of BEDDGELERT, county of CAERNARVON.—*ON THE COST-BOOK PRINCIPLE.*

In 2048 shares, of £5 each.—Deposit £3 per share, without further calls—the remaining £2 being receivable out of the returns of the mine.

Upwards of £8000 have been expended on this mine and the works thereunto appertaining; in consequence, the present returns may be estimated at from 40 to 50 tons per month, according to the mining strength employed. There are now ready for sale upwards of 30 tons of ore.

In order to extend the operations of the mine, and carry out some valuable discoveries of mineral lodes, the mine is now divided into 2048 shares, of which 1048 are offered to the public, subject to the before-mentioned deposit as working costs.

For prospectuses, with full particulars and reports, apply to Mr. Maniere, solicitor, 2, Scott's-yard, Bush-lane, Cannon-street, where specimens of the ore may be seen.

CAMERON'S COALBROOK STEAM COAL & SWANSEA AND LOUGHOR RAILWAY COMPANY.—*Registered and Incorporated.*

Whereas, the funds or property of the company, at the disposal of the Board of Directors, being insufficient to carry on the concerns of the company, and it being thought advisable to call for more than £3 per share of the capital or joint-stock of the company, for the purposes of the Company, the Board of Directors did, on the 15th day of June instant, come to a resolution, in the words and figures following—(that is to say),—

"Resolved,—That all the co-partners shall be, and are hereby, called upon to pay a further instalment of £2 on the several shares held by them respectively, in the capital or joint-stock of the Company, in addition to the several instalments, amounting together to the sum of £8, which have been paid, or called up on the said shares; such instalment of £2 per share to be paid and payable on the 10th day of September, 1850, at the Commercial Bank of London."

Now, Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the registered shareholders of the said Company will be HELD at the Company's Office, No. 2, Moorgate-street, London, on Tuesday, the 2d day of July, 1850, at One o'clock in the afternoon precisely, for the purpose of entering into a resolution to confirm the said resolution of the Board of Directors.

By order of the Board of Directors,
A. C. HOWDEN, Secretary.

Company's Offices, 2, Moorgate-street, London, June 15, 1850.

EAST OF SCOTLAND MALLEABLE IRON COMPANY.—Notice is hereby given, that a SPECIAL GENERAL MEETING of the shareholders of the EAST OF SCOTLAND MALLEABLE IRON COMPANY will be HELD within the Town House of Dunfermline upon Thursday, the 22d day of August next, 1850, at Twelve o'clock noon, for the purpose of considering a proposal to DISSOLVE the said COMPANY, and to SELL and realise the whole PROPERTY and ESTATE, and FUNDS and EFFECTS of the Company, and finally to wind-up the Company's affairs—all in terms of the 37th clause of the Contract of Copartnery of the said Company.

By order of the Directors,
JAMES INGLIS, Chairman.
Dunfermline, Feb. 6, 1850. JOHN DRYSDALE, Interim Secretary.

GUADALCANAL SILVER MINING ASSOCIATION.—At the Adjourned General Meeting of shareholders, holden at the offices of this association on Wednesday, 19th June inst., it was moved, and carried unanimously,—

That it is the opinion of this meeting that the existing Company should be dissolved, and all its affairs liquidated, with as much speed as possible.

That the directors be requested to call a meeting to pass the proper resolutions for carrying this opinion into effect.

Notice is hereby given, that a SPECIAL GENERAL MEETING will be HOLDEN at the offices of the Association on Wednesday, 10th July next, at Two o'clock precisely.

By order, H. T. RYDE, Secretary.

34, Broad-street-buildings, London, June 19, 1850.

Just published,

A MAP OF THE GREAT NORTHERN COAL-FIELD, in the Counties of NORTHUMBERLAND and DURHAM, from actual surveys, by I. T. W. BELL, Engineer and Surveyor, and engraved by M. & M. W. LAMBERT, Newcastle-upon-Tyne.—This Map, 4 inches by 36 inches in size, and drawn to a scale of 1 mile to an inch, is engraved in the best style, and includes the whole of the extensive and important Coal Mining Districts of the Tyne, Wear, and Tees, together with those of Hartlepool, Seaham, Hartley, Blyth, and Warkworth. It extends from Stockton-upon-Tees and Middlesbro'-on-Tees to the south, to the River Coquet and Warkworth Harbour on the north, and from the German Ocean on the East Inland to Woolsingham, in the county of Durham, and Bywell, in the county of Northumberland, comprising an area of about 1100 square miles.

This Map accurately shows the various Collieries and Colliery Railways, Public Railways, and Railway Stations, Boroughs, Market Towns, Villages, Mansions and Farm Houses, Iron-works, Harbours, Docks and Shipping Places, Turnpike and Cross-roads, Boundaries of Townships, Parishes, Boroughs, and Counties, and all Places of Interest—forming the most comprehensive and useful Topographical Survey of the Commercial and Coal Mining Districts of the North of England that has ever been offered to the public.

PRICE TO SUBSCRIBERS.

Plain, in sheets	£1	11	6—to be paid on delivery.
Coloured, ditto	2	2	0 ,,
Coloured and Mounted on cloth and rollers and varnished, or in a case	2	12	6 ,,

*** A proof of the Map may be seen, and subscribers' names received, at the office of the *Mining Journal*, 26, Fleet-street, London.

ASSAYING AND ANALYSIS.—ASSAYS and ANALYSES of MINERALS, METALS, SOILS, FURNACE, and all other MANUFACTURING PRODUCTS. INVENTORS and INTENDING PATENTEES assisted in PERFECTING any INVENTION involving an intimate knowledge of chemistry.

INSTRUCTION in all branches of ASSAYING, ANALYSIS, and METALLURGICAL and MANUFACTURING CHEMISTRY.

Communications to be addressed to Mr. Mitchell, 23, Hawley-road, Kentish Town.

PATENT IMPROVEMENTS IN CHRONOMETERS, WATCHES AND CLOCKS.

E. J. DENT, 82, Strand; 33, Cockspur-street; 34, Royal Exchange (clock tower area), Watch and Clock Maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in four holes, 6 gs. each; in gold cases, from £8 to £10 extra. Gold horizontal watches, with gold dials, from 8 gs. to 12 gs. each.

DENT'S PATENT DIPLIEDOSCOPE,

or Meridian Instrument, is now ready for delivery.—Pamphlets containing a description and directions for its use 1s. each, but to customers gratis.

FURNACE MANAGER WANTED, to take CHARGE of several BLAST FURNACES, and also to SUPERINTEND and KEEP the TIME of the WORKMEN employed about the same. A young man of energy, and thoroughly acquainted with the apparatus, is required, and one who has a knowledge of the adaption of the gases of the furnaces to the heaters and boilers will be preferred.—Address, in applicant's writing, to "A. B.," Post-office, Newcastle, Staffordshire.

TO CAPITALISTS.—WANTED, in a very extensive manufactory, in full operation, with large orders on hand, a PARTNER, who can command £10,000 to £15,000, to take or not an active part in the finance department. The money is required to pay a retiring partner. This manufactory has always paid a large per centage, and is one of the most safe and profitable investments of the day, and well worth the attention of any person having the above sum at command, as the articles manufactured are, and must continue to be, in general request.

Application by letter (which will be considered strictly confidential), addressed to "J. D.," care of Mr. G. H. G. Tarleton, accountant and estate agent, 5, York-buildings, Dale-street and Sweeting-street, Liverpool.

N.B.—None but principals will be treated with.

TO CAPITALISTS.—WANTED, a PARTNER, in an established COLLIERY, who can command £2000 or £3000—active or otherwise. The colliery is situated in Monmouthshire, and is in connection with the port of Newport by the Canal Company's New Western Valleys Line. The colliery is in full work. Satisfactory reasons will be given why a partner is admitted. The whole of the money brought in will be applied to the enlargement and working of the colliery. None but principals will be treated with, and to them every information will be afforded.—Address "A. D.," care of the Editor of the *Mining Journal*, 26, Fleet-street, London.

WANTED, in a MANUFACTURING BUSINESS and IRON TRADE, A PARTNER, who can command from £6000 to £8000, and who may be actively engaged or otherwise. The business is well established, and in full operation, yielding good profits, and capable of considerable improvements.—Communications, addressed to "A. B.," 25, Basinghall-street, London, will have prompt attention.

N.B.—None but principals will be treated with.

STEAM-ENGINE.—WANTED, for WHEAL VENTON, near LISKEARD, a SECOND-HAND 22-inch cylinder WINDING and PUMPING-ENGINE, with BOILER, &c., complete.—Address, stating full particulars, with lowest price erected on the mine, to Mr. John Watson, 13, George-yard, Lombard-street, London.—June 13, 1850.

MR. EVAN HOPKINS, C.E., F.G.S., CONSULTING MINING ENGINEER,

OFFICE, No. 13, AUSTINFRIARS, LONDON.

Mr. HOPKINS may be consulted daily by Noblemen, Gentlemen, and Capitalists, who have invested, or may wish to invest, their capital in MINES or MINERAL PROPERTIES, on all matters connected therewith (Home and Foreign).

*** Every description of Mineral Property inspected and reported on, and distant capitalists may receive periodical advice, in the German, French, and Spanish Languages.

N.B.—Managers and Directors of Mines, as well as Mining Captains, will find Mr. Hopkins's offices convenient for reference on all matters connected with mining, as he has all the Maps on the Geology and Mines of the United Kingdom, the majority of which are from his own observations. The emigrants to California and other gold districts are also furnished with instructions on good mines, deposits, and machinery for the same.

PARTNERSHIP DISSOLVED—MESSRS. JOHN T. TEAGUE & CO., TRURO.

MR. JOHN TREVENA TEAGUE, MINE SHARE-BROKER and GENERAL COMMISSION AGENT, begs to inform his numerous supporters that he intends CARRYING ON the ABOVE BUSINESS in this town, being in the midst of the most flourishing mines in Cornwall, which facilitates every advantage to buyers and sellers.

Mr. J. T. T. acts on commission only, and hopes to receive that confidence and support he has hitherto experienced.

Fore-street, Redruth, June 19, 1850.

MR. TRIPP, MINE AGENT, EXCLUSIVELY FOR PRINCIPALS, is instructed to BUY and SELL in most of the best DIVIDEND-PAYING MINES; also in NEW ONES, having present and prospective advantages, including Condurrow, Devon Great Consols, South Wheal Basset, Tresavean, Treviskey and Barrier, Treleigh Consols, Lelant Cousols, Pendarves Consols, West Wheal Treasury, North Buller, Trehane, West Caradon, Wheal Russell, Penzance Consols, Wheal Langmaid, Cook's Kitchen, Tincroft, South Tamar—Asturian, Linares, Cobre, Santiago, St. John del Rey, &c. MINING OFFICES,

ST. MICHAEL'S CHAMBERS, ST. MICHAEL'S-ALLEY, CORNHILL, LONDON.

MINING PROPERTY.—Messrs. CREFT, FULLER, & CO. TRANSACT BUSINESS in every description of MINING PROPERTY and SHARES. They have now on hand a FEW SHARES in a MINE, which there is every reason to believe will prove one of the most VALUABLE in CORNWALL, being surrounded by Carn Brea, Wheal Buller, North Wheal Basset, and other rich and dividend-paying mines.—1, Royal Exchange-buildings.

MINING INVESTMENT.—Messrs. BOXALL & CO. have SHARES FOR SALE in several DIVIDEND MINES, giving from 15 to 25 per cent. on present purchase; also Shares for Sale where no further calls will be required, and DIVIDENDS paid within three months. The attention of CAPITALISTS is INVITED to the LAST NAMED, as being safe investments, these mines having proved very rich, are now making good returns, and the shares can be bought at a moderate price.—Information regarding new mines brought before the public, with the market prices of shares, furnished gratuitously.

MINING OFFICES,

5, *CROSBY-HALL CHAMBERS, BISHOPSGATE-STREET, CITY.*

MINING PROPERTY.—Mr. HERRON has SHARES in the best DIVIDEND MINES FOR SALE, and which will give to the purchaser 17 to 25 per cent. for the outlay; amongst others are the following:—South Basset, South Frances, Treviskey, Wheal Seton, Trethellan, Wheal Comfort, Tresavean, Stray Park, Levant, Botallack, South Tolgus, Devon Great Consols, Tincroft, Tamar, Callington, Holmbush, Lewis, Keswick, and West Providence—United Mexican, Asturian, St. John del Rey, and Linares Mines.

MINING OFFICES—33, CLEMENT'S-LANE, LOMBARD-STREET.

MESSRS. WATSON & ENSOR, MINING AGENTS, 4, *TOKENHOUSE-YARD, LOTHBURY, LONDON.*

MR. T. A. READWIN, MINING OFFICES, 2, *WINCHESTER-BUILDINGS, OLD BROAD-STREET, LONDON.*

MR. C. S. RICHARDSON, CIVIL ENGINEER, LAND AND MINING SURVEYOR.

No. 15, OLD BROAD-STREET, LONDON.

MR. GEORGE BATE, Jun., CIVIL ENGINEER AND SURVEYOR, *WOLVERHAMPTON.*

Offices in Queen-street, corner of Piper's-row.

N.B.—UNDERGROUND MINING SURVEYS accurately executed.

JAMES LANE, MINING SHARE DEALER, 80, *OLD BROAD-STREET, LONDON.*

BRITISH AND FOREIGN REGISTRY OFFICE.—PARTIES having MINERAL ESTATES, COLLIERIES, or MINES, FOR SALE, or SHARES TO DISPOSE OF, in DIVIDEND MINES, or OTHERS, by enclosing a list of the number and price of such shares, and particulars of such property, the same will be REGISTERED FOR SALE, and commission charged only on sales taking place. Money advanced if required.—Apply to Messrs. DURRANT & Co., 58, Lombard-street.

ASTURIAN MINING COMPANY.—Notice is hereby given, that a SPECIAL GENERAL MEETING of the shareholders in this Company will be HELD at the offices of the company, 9, Austinfriars, in the city of London, on Monday, the 24th day of June inst., at One o'clock precisely, for the purpose of taking into consideration the terms of a Negociation now pending for the reconstitution of this Company, and to assent to, or dissent from, the confirmation of a Contract already entered into provisionally for that purpose.

A copy of the Contract so provisionally executed may be seen at the said offices of the Company, on Thursday, Friday, and Saturday, previously to the said day of meeting. The meeting can be attended only by shareholders who have paid £15 on their respective shares. CHARLES CUNINGHAM, Chairman.

Offices of the Company, KENNETH MACKENZIE, Secretary.

No. 9, Austinfriars, London, June 14, 1850.

ROYAL SANTIAGO MINING COMPANY.—The directors hereby give Notice, that the ANNUAL GENERAL MEETING of the shareholders will be HELD at the Office of the Company on Wednesday, the 10th of July next, at One o'clock precisely, when the Directors will make their report.

38, Broad-street-buildings, June 20, 1850.

RHYMNEY IRON COMPANY.—The HALF-YEARLY MEETING of the proprietors of this Company will be HELD at the Company's offices, 7, Laurence Pountney-hill, on Friday, the 28th inst., at One o'clock precisely.

7, Laurence Pountney-hill, June 15, 1850. T. E. SCUDAMORE, Secretary.

MINING ALMANACK for 1850.—The SECOND VOLUME of this publication will appear early in July, with Original Articles and Statistical Matter up to the latest period.—The following are the

CONTENTS.

London: Published at the Office of the *Mining Journal*, 26, Fleet-street.

MONKLAND IRON AND STEEL WORKS.

A few days ago we had an opportunity of inspecting that portion of those extensive works belonging to the Monkland Iron and Steel Company which is situated at Calder Bank, in the Middle District of Lanarkshire, and as we have not visited this great hive of industry and enterprise for a lengthened period, a few remarks on the subject may not be deemed uninteresting. Coatbridge occupies very nearly the centre of a group of seven works, which, with the names of the proprietors, and the number of blast-furnaces at each, may be thus enumerated—

1. Gartsherrie	Iron-Works	Messrs. Baird	16	blast-fur.
2. Dundyvan	do.	John Wilson, Esq.	9	do.
3. Calder	do.	W. Dixon, Esq.	8	do.
4. Summerlee	do.	Wilsons and Co.	6	do.
5. Langloan	do.	Adie, Miller, and Co.	6	do.
6. Calnbroe	do.	Merry and Cunningham	6	do.
7. Monkland	do.	Monkland Iron Company	9	do.
		Total	60	blast-fur.

All these works, except the Monkland, are within a radius of one mile from the village of Coatbridge. We have thus, within a circle of less than two miles in diameter, the blaze of upwards of 50 blast furnaces day and night in operation; at least, this is the case under ordinary circumstances, for it is to be hoped that the present unhappy strike which has blown out many of these great lights will not be of long continuance.

At the Calder Bank section of the Monkland Company there are six furnaces in blast, but a short way up the country there are other three furnaces in blast in conection with the same company; we speak, therefore, only of the Calder Bank portion; and although the manufacture of iron is now no great mystery, a few sentences regarding the process, as exemplified at this work, may not be uninteresting to those who have not an opportunity of visiting one of these great establishments. These works, as we have stated, consist of six blast furnaces for the make of pig-iron, with forges and rolling mills, &c., attached, for the manufacture of malleable iron. They are situated in a valley, and although at first sight (from the immense amount of transit which daily goes on) the situation may appear a disadvantageous one, still such is not the case. The mineral from the surrounding districts is brought in easily on a level with the tops of the blast furnaces; the pig-iron therefrom produced is quite contiguous to the malleable department, where it passes through all the varied processes to the finished bar of iron, and it is thence conveyed by railway to the Monkland Canal, which is but a few hundred yards distant. There is thus a gradual descent in all the stages from the ironstone put (without elevation) into the blast furnace to the merchant bar delivered on the quay. The position of these works may have arisen partly from circumstances as well as choice. Many years ago, there stood in this valley a small building, where the manufacture of steel was carried on very successfully. In this age of progression, however, that work was gradually extended, and, through enterprise, the unassuming steel manufactury soon became the parent of the gigantic iron-works of which we write. This work still remains, and in it a goodly quantity of labour is daily performed.

Our inspection commenced with the blast furnaces, where the smelting process goes on, reducing the ironstone to cast or crude iron. They are regularly, day and night, supplied with coal, ironstone, and limestones in proportions, varied according to the quality of cast-iron desired to be produced. The ironstone used is not, as may be supposed, in a raw state as it comes from the pit. It has first to undergo the process of burning or calcining, and for this purpose it is generally spread out in large heaps on the ground, near the mouth of the pit, where it is ignited. The blackband ironstone which, we believe, is almost exclusively used here, is a species of coal or carboniferous ironstone, and contains a sufficient quantity of coaly matter to calcine itself. During the process, which generally lasts upwards of eight days, water, carbonic acid, and other volatile matters, are given off—the ironstone is thus reduced to a kind of porous heavy cinder, and rendered fit for the blast furnace. During the day, the ironstone heaps, while burning, may be often seen emitting a thick smoke, but during night the various colours of the ignited gases present a truly grand and imposing appearance. The blast furnaces consist of huge circular buildings, built wholly of fire-bricks, hooped with strong bars of iron, and average from 45 to 60 feet in height. In the bottom of the furnace is an oblong recess, about 3 feet deep, called the "hearth," where the liquid metal is allowed to collect. As it is reduced, powerful steam-engines are employed for blowing air into the furnaces which, before entering, is heated to a temperature of 650° Fahr., by passing it through a series of hot tubes. This causes what is known by the name of the "hot-blast," an improvement discovered by our townsman Mr. B. Neilson, 20 years ago, and perhaps one of the greatest discoveries in metallurgy of the present age. As a proof of its value, it may be stated that, previous to its introduction, about four times the present quantity of coal and twice the quantity of limestone were required to produce one ton of pig-iron, while the average produce of the furnace was little more than one-half—the air then used not being above the temperature of the atmosphere. At the end of every 12 hours, when the hearth of the furnace is generally nearly filled with the liquid metal that has been accumulating since the former cast, the furnaces are tapped, and the metal run off into beds of sand moulded to receive it—the large runners technically called "sows," the smaller moulds "pigs"—hence pig-iron. The appearance of the iron when casting is very beautiful, throwing off from its surface innumerable brilliant sparks. To produce each ton of pig-iron there must be thrown into the furnace about 40 cwts. of coal, 30 cwts. of ironstone, and 6 cwts. of limestone, with about 12 tons of atmospheric air, at the high temperature before-mentioned.

We now leave the blast furnaces to pass on to the malleable department, and here a scene of bustle and animation presents itself which almost baffles description. The first process in the conversion of the pig into malleable iron, is that of refining. This operation is carried on in a small quadrangular furnace covered with a wide chimney for carrying off the gaseous products. The pig-iron is put into it as it comes from the blast furnace, with a quantity of coke; and a strong blast, admitted by small tuyeres, on each side of the furnace, is allowed to play upon this charge, which in a short time reduces the iron to a liquid; the blast being continued, the iron soon shows signs of ebullition, during which silicon, oxide of carbon, &c., are disengaged. When this operation has been continued for upwards of an hour, the iron is run off into large iron moulds, and when cool, broken up and laid aside for the next process, which is that of puddling. The appearance of this refined iron is white, like silver, of sparkling fracture, and more weighty than pig-iron. We now pass on to the puddling furnace, which is a kind of reverberatory furnace, built almost wholly of fire-brick, encased with cast-iron plates. The refined iron is thrown into a hollow chamber in this furnace, and exposed to the action of a most intense flame. This is, perhaps, the most particular process of the whole, as here the iron first assumes the malleable form, and the skill and care bestowed on it here determine, in a great measure, its quality in the finished state. The iron fuses generally in about 20 minutes after being thrown into the furnace, when the workman commences to stir it with a puddle, turning up every particle to the action of the flame, so as to oxidize the carbon remaining in the iron, which passes off in the form of carbonic oxide. Gradually, under this exposure, the iron becomes less fusible, and, in proportion to the disengagement of this gas, it comes into a pasty state. The workman then rolls it up into large masses of about 100 lbs. each, like a snowball, and these are drawn out and subjected to a hammer or squeezer, and afterwards put through large rollers, producing what is called "puddle bar." These bars are cut up into short lengths, by strong shears, of which there are several so powerful that they can cut almost the largest bars of iron, and with as much ease as a lady would cut a piece of cloth with her scissors. We now come to the last stage in this interesting manufacture—viz.: the rolling mills, in which the iron is finished for the market. In this process the short pieces of puddle bar, mentioned above, are put up in piles, of such a size as to form the bar of iron required. These are placed in large heating furnaces, and when brought to a high weldingheat, are drawn out, put through the rollers, and rolled out to the form required. These mills appear to be of various sizes, capable, we understand, of turning out iron of every form and dimension, from the smallest nail rod to the heaviest railway bar and largest boiler plate. We would also notice the steam-saws worked on the rotary principle. They are used for cutting the ends of large bars and rails which require to be perfectly square, and these move at an almost incredible velocity—cutting through the strongest bars of iron as quick a thought. We might also allude to the foundry, engine shops, &c., but in a short article, such as the limits of a journal will permit us writing, we cannot, ofcourse, be expected to enter fully into all the details of this gigantic iron-work—suffice it to say that, taking into account the other branches of the works, we understand they can finish upwards of 1100 tons of malleable iron per week—a quantity scarcely exceeded by any iron-work in Great Britain. They give employment to upwards of 2500 men, so that, at a moderate computation, 10,000 souls are depending on the works belonging to the Monkland Iron and Steel Company alone. This may give the reader a better knowledge of thir extent than all we could write; and it must be gratifying to every one to know that these people enjoy almost every comfort in their situation. The liberality and enterprise of the proprietors has been the means of making many happy home, that would otherwise be cheerless and uninviting. We are certainly glad to see, amid such times of depression and stagnation in the ironstrade, that these works are in full operation, a fact which surely reflects credit on the management of this extensive concern. The men engaged in these ironworks are all stout athletic young fellows, working in many cases with nothing o their bodies except their trousers. Of course they can make excellent wages. A providential, but at the same time melancholy, occurrence took place here some time ago, by the bursting of a boiler. The disrupted mass was torn fromits bed, carrying with it everything that impeded its progress, killing two men, and injuring some others. Happily, at the time, the men were what is ermed shifting—those employed during the day making room for the night workers, and consequently there were comparatively few engaged at the time. Had all the men been employed, however, we are assured that, from the direction the boiler took, the sacrifice of life would have been fearful.

We will now leave the iron-works, and take a glance at some of the comforts that have been provided for the workmen. The first place we visited was the flesher's shop, in one department of which the cattle are slaughtered, and in the other the beef and mutton is retailed. This place admits of few remarks, if we except the cleanly appearance of the apartments, and the excellent quality of the beef that is supplied to all who like to purchase. The dairy is well stocked with excellent cows, there being nearly 80 beautiful animals. The milk of the cows is retailed at a cheap rate to the workmen, and is of the finest quality. Indeed, we rarely get such milk in Glasgow, although we were willing to pay double the price. The dairy is under the management of Mrs. Clark, who has been brought up from her infancy in similar situations, and consequently has a thorough knowledge of her business. The butter is here churned by steam-power, and a considerable quantity can be produced in a very short time. We admired the cleanliness of the whole apartments—not excluding the byre, which is plastered in the inside and whitewashed, imparting to it a clean and airy appearance. Next, and perhaps the most important department attached to these works is the store, which is under the entire superintendence of Mr. J. Hamilton. The store, it may be said, contains everything from a needle to an anchor. There are groceries, provisions, and clothing of every description, and of the very best quality, beside other articles necessary for a community such as is to be found in and around Calder Bank. We observed also that Mr. Hamilton, while he attends to the wants of the body, has been no less careful in furnishing food for the mind, in the shape of cheap and instructive periodicals, which are much sought after, and extensively read in the district. It may be stated that the articles retailed in this store are not only sold to the persons belonging to the works, but that people come from a great distance and make their purchases—a circumstance which we merely mention to show that the mining and iron-working classes are as well suited in this respect as any other portion of the community, although it has suited the purpose of some persons to assert the contrary. The store at the time of our visit was very thronged, and we were much pleased with the expeditious, attentive, and courteous manner in which the numerous purchasers were served, the cleanliness of the establishment in all its departments, and the orderly and systematic manner in which the business was transacted.

There are no fewer than six male schools and one female school in connection with the works, with an average attendance of about 1500 persons. The company provide the schoolroom, master's house, and coal, and the salary of the teachers is paid from the weekly fees. The scale is as follows:—2d. per week for one child; 3d. for two children; and 4d. for three children. It is compulsory that every person belonging to the work, whether married or not, pays the sum of 2d. per week for education, and all have a right to attend the instruction there given. The young unmarried men have the liberty of adopting a childand sending it to school, or of attending themselves—a regulation in the highest degreebeneficial. It may appear hard that the men should thus be compeled to pay this item weekly; but it is a fact, that many of them would never think of sending their children to school, or even going themselves, if they were not compelled to pay. The children thus enjoy a privilege which, in after-life, they cannot but find useful, and will, no doubt, be grateful to those who were the means of extending it to them. There is also a reading-room, which is supplied with 38 of the principal Scotch and English newspapers, and also a number of periodicals. The charge for the use of the room and papers is only 2d. per week, and any person is allowed to become a member. Those who do not incline to become members are not required, as in the case of the schools, to pay. It is, however, extensively used, and the papers are read with great earnestness. The company kindly supply the room and coal gratis, and pay the superintendent's salary. A library was formed two years ago, and is already well stocked with standard works. At its commencement the company placed a large number of excellent volumes on the shelf for the use of the members. The members' subscription is 2s. per annum. There is a primitive Methodist chapel in the village, which is well attended; but the great majority of the workers generally attend Divine service at Holytown and Airdrie. We have scarcely space to make one remark on the comfortable appearance of the workmen's houses. They are exceedingly handsome and comfortable, and the occupants themselves seem to vie with one another as to who will possess the cleanest dwelling. Much praise is certainly due to the managing partner of these extensive works for the deep interest he appears to take in the moral, intellectual, and physical improvement in the condition of those in the company's employment.

We cannot close this brief sketch without referring to a remark we heard made in the district, that a greater amount of wealth, convertible into gold, could be taken from the mining districts of Lanarkshire than could be dug from the mountains and valleys of California in the same period—a remark in which we entirely concur, apart altogether from the comparative comfort, safety, and organization of the two countries.—*Glasgow Herald.*

The Slate Quarries of Wales.

[The following lines, by the late Judge Laycester, of the North Wales Circuit, are a witty turn, in allusion to the Slate Quarries of Wales and their gradations, as Duchesses, Countesses, Ladies, double and single.]

It has truly been said, as we all must deplore,
That Grenville and Pitt made peers by the score;
But now 'tis asserted, unless I have blundered,
There's a man who make peeresses here by the hundred;
He regards neither Grenville, nor Portland, nor Pitt,
But creates them at once without patent or writ;
By the stroke of the hammer, without the king's aid,
A lady, a countess, a duchess is made;
Yet high is the station from which they are sent,
And all their great titles are got by descent;
And when they are seen in a palace or shop,
Their rank they preserve, and are still at the top;
Yet no merit they claim from their birth or connection,
And derive their chief worth from their native complexion,
And all the best judges prefer, it is said,
A countess in blue, to a duchess in red.
This countess, or lady, though crowds may be present,
Submits to be dressed by the hands of a peasant!
And you'll see, when her grace is but once in his clutches,
With how little respect he will handle a duchess;
Close united they seem, and yet all who have tried them,
Soon discover how easy it is to divide them;
No spirit have they, they are thin as a lath,
The countess wants life, and the duchess is flat;
No passion or warmth to the countess is known,
And her grace is as cold and as hard as a stone;
Yet I fear you will find, if you watch them a little,
That the countess is frail, and the duchess is brittle.

STEAM FERRIES IN AMERICA.—The management of these steam ferries is deserving of notice. It is generally so arranged that the time of crossing them corresponds with a meal of the passengers. A platform is constructed, level with the line of rails, and carried to the water's edge. Upon this platform rails are laid, on which the waggons which bear the passengers' luggage and other matters of light and rapid transport are rolled directly upon the upper deck of the ferry boat, the passengers meanwhile proceeding under a covered way to the lower deck. The whole operation is accomplised in five minutes. While the boat is crossing the spacious river, the passengers are supplied with their breakfast, dinner, lunch, or supper, as the case may be. On arriving at the opposite bank the upper deck comes in contact with a like platform, bearing a railway on which the waggons are rolled. The passengers walk by a covered way and resume their places in the railway carriages, and the train proceeds

THE LIVERPOOL DOCKS.—The docks of Liverpool are estimated in round numbers to have cost 2,067,000*l.*, exclusive of interest upon borrowed money, of which upwards of 4,000,000*l.* is still owing. With interest paid, the cost of the docks to the present time would amount to 13,637,000*l.* The accommodation is still insufficient, and the consent of Parliament has been obtained for the construction of another dock.

DISCOVERY OF AN EXTRAORDINARY CAVERN IN AMERICA.—It appears from a letter recently received from America, that in Winconsin territory, some miners while lately sinking a shaft for a lead mine, discovered, at a great depth, an enormous cavern, said to be at least 10 miles in length, and having this extraordinary peculiarity, that there runs through it a river of such extent, that to cross it the miners required to be furnished with a boat. The sides of the cavern were found lined in various places with copper, silver, lead, and tin ores, so pure as to yield 99 per cent. Were it not that we can place full reliance on the authenticity of the information, we must confess that this description would seem to us to savour rather much of the marvellous, reminding us, as it does, of some of the wonderful caverns in the *Arabian Nights.*

DIVISIBILITY OF MATTER.—A remarkable instance of the divisibilty of matter is seen in the dyeing of silk with cochineal, where a pound of silk, containing eight score threads to the ounce, each thread 72 yards long, and the whole reaching about 104 miles, when dyed with scarlet does not receive above a drachm additional weight, so that a drachm of the colouring matter of the cochineal is actually extended through more than 100 miles in length, and yet this minute quantity is sufficient to give an intense colour to the silk with which it is combined.—*Quarterly Journal of Agriculture.*

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

MONDAY.....Asiatic Mining Company—offices, at One.
European Life Assurance and Annuity Company—offices, at Twelve.
Law Life Assurance Company—offices, at Twelve.
TUESDAY.....South Australian Banking Company—offices, at One.
WEDNESDAY..South Australian Company—offices, at One.
University Life Assurance Company—Union Hotel, half-past Three.
THURSDAY....General Mining Association—offices, at One.
Minerva Life Assurance Company—offices, at One.
Canada Company—offices, at One.
European Gas Company—offices, at Two.
FRIDAY .....Rhymney Iron Company—offices, at One.
SATURDAY....Polytechnic Institution—offices, at One.

[*The meetings of Mining Companies are inserted among the Mining Intelligence.*]

BANK OF AUSTRALASIA.

The annual meeting of this company was held at the offices, Austinfriars, on Monday, the 17th inst., for the purpose of electing three directors—namely, Sir George Carrol, Oliver Farrer, Esq., and Sir A. P. Green; also for electing a director, in the room of George Holgate Foster, Esq., resigned; and, finally, to receive the annual report of the directors.

J. S. BROWNRIGG, Esq., in the chair.

Mr. MILLIKEN (the secretary) read the advertisement, and the following

DIRECTORS' REPORT.

In laying before the proprietors the sixteenth annual report upon the affairs of the bank, together with the usual statements of accounts at the yearly balance of the 15th October, 1849, the directors have the pleasure to state that satisfactory progress has been made in the colony towards realising the debt due by the Bank of Australia, and to express their conviction, that the whole amount of judgment will, in a moderate space of time, be paid: they have, therefore, brought to account amount of interest and costs recovered at Sydney, namely, 65,182*l.* 5s. 1d.

Against the few English shareholders of the Bank of Australia who have declined to enter into terms of arrangement, the directors have steadily pursued their course; and although they have been met by every device that legal ingenuity could suggest, they have, in the only case which has been heard, obtained the unanimous judgment of the Court of Common Pleas, overruling all the objections that had been raised, and leaving the only point for decision the simple question of fact, whether the party sued be a shareholder or not. The directors have since come to terms of compromise in the case referred to, and are still ready, as they have always been, to make arrangements with the other party against whom proceedings are pending.

In their report of last year the directors stated the extent, according to the best estimate they were able to make, of the probable losses of the bank, in addition to the sum then available as the balance of the bad debt fund; and, acting upon that view, the following will show the result:—

At 16th October, 1848, the estimated deficiency, after applying the bad debt fund of 82,018*l.* 15s. 7d., was			£49,009 10 10
Against which has been placed the interest on the Bank of Australia debt and costs			65,182 5 1
Leaving a surplus, according to that estimate, of			£16,172 14 3
To this are now to be added—			
Net profits in colonies, and London, for the year ending 15th Oct, 1849; deducting expenses of management	£54,330 0 11		
Less irrecoverable debt, written off in the year in the colonies, in excess of former estimates	£ 6,284 17 8		
And div. of 12s. per share, 1st. Oct., 1849	13,500 0 0	19,784 17 0	34,545 3 3
Leaving a balance at 15th October, 1849, of			£50,717 17 6

The assets and liabilities of the bank at the same period, stood as follows:—

ASSETS—Government stock, specie, and cash	£448,352 3 5		
Bank premises	24,299 1 0		
Bills receivable, and other securities	1,299,882 18 5		£1,772,534 2 10
LIABILITIES—Capital	900,000 0 0		
Circulation	106,465 0 0		
Bills payable, and other liabilities	245,423 4 2		
Deposits	469,928 1 2		
Profit and loss	50,717 17 6		£1,772,534 2 10

The directors, since their report in June last, have received advices and valuations from the colonies, which lead them to anticipate a considerable addition to the losses then estimated by them upon old dependencies, not, however, to such an extent as to render it necessary to interrupt the payment of dividends, although the effect must be to continue a low rate longer than had been hoped and expected. The disappointment which is felt at the result of the estimates referred to, has determined the directors to abstain for the future from laying any fresh valuations before the proprietors, but to write off the actual amount of loss ascertained, as each dependency is wound up. They have also resolved to appropriate the surplus yearly profits, after paying dividends, to meet such contingencies; and as the current business of the bank is of a healthy, profitable, and improving character, the directors entertain a confident hope that, ere long, they will be justified in increasing the dividend to 4 per cent. per annum; but they are of opinion that this rate should not be exceeded, until the securities held by the bank are either realised, or all question as to their depreciation set at rest. The October dividend, however, will be continued at the present rate of 12s. per share, free of income tax.

The CHAIRMAN said, it must be a subject of congratulation to them all to see the position in which they stood as to the Bank of Australia. It had been stated that the directors expected the realisation of the whole of that debt within a moderate period, besides the interest and charges upon that debt, stated in the report to amount to 65,182*l.* (Hear, hear.) In the last annual report the directors stated that they estimated the probable losses in round numbers about 50,000*l.* The directors at the same time told the proprietors that they would have at some future time to bring to the credit of that account the interest of the debt of the Bank of Australia. This had been done, and left a surplus of 16,172*l.* (Hear, hear.) It would, therefore, be seen that, in Oct., 1849, at the close of their accounts, there was an available balance of 50,717*l.* This sum, the directors were of opinion, would be sufficient to cover anything they had estimated at the time the last statement was laid before them in June. It was his opinion, that they were now seeing their way to the end of their losses, and that in a moderate time, by supporting any further contingencies that might arise on the realisation of the various properties over the current half-yearly account, they might still preserve the dividend. In conclusion, he hoped that they would, before long, as stated in the report, be able to raise the dividend to 4 per cent., and also to remove any clog upon their surplus profits. (Applause.)

The adoption of the report having been moved and seconded,

Mr. MUDGE said, that he expected, as they had an increased amount of capital in the past year, and the colony had considerably improved, a much larger amount of profit. (Hear, hear.) Only three years ago they were told that there was a deficiency of 80,000*l.*, since when they had added 50,000*l.*, making the bad debts 130,000*l.* He would ask what could be expected from their property when such immense losses had to be sustained. (Hear.)

The CHAIRMAN did not deny but their losses had been very great, but they were the effect of old transactions. It was well known to many gentlemen present how property in the colony had been continually going down for several years, so that many properties which were formerly estimated as good securities were, when they came to be realised, of comparatively little value. He was happy to say that there had been no fresh losses to speak of; and as to the profits, they were really greater in 1849. The uncertainty which prevailed in forming any just estimate of their loss by such securities was the reason why the directors would avoid for the future laying any fresh estimates before the proprietors. (Hear, hear.)

Mr. Sergeant GAZELEE thought this was the most *dejeune* report he had ever seen; it was impossible to collect anything from such a report. It was stated that the net profits were 50,000*l.*, but it was not stated what were the expenses. He thought they ought to have a regular debtor and creditor account. He did not say that he had no confidence in the directors individually, but he had no confidence in the board collectively; for he knew that when they get together they would become negligent. The hon. proprietor concluded by moving as an amendment, "That in future the directors be requested to lay before the proprietors a more full and detailed account of the receipts and expenditure of the bank, and also to send their report to each proprietor at least seven days before the meeting."

Mr. WOOTTON seconded the amendment.

A long discussion then took place on the impolicy of publishing more detailed accounts of the bank, and giving the reports to the proprietors before the meeting, in which Mr. Oliver Farrer and Mr. Meek (two of the directors), Mr. Borradaile, Mr. Goddard, and other proprietors, took part.

The CHAIRMAN put the amendment, which was lost on a show of hands, and the original motion was carried.

Sir George Carroll, Oliver Farrer, Esq., and Sir A. P. Green were re-elected directors unanimously.

The CHAIRMAN then proposed the name of D. Henriquez, Esq., as a director, to fill the place of G. H. Foster, Esq., resigned.

Some conversation took place on this subject, when Mr. Henriquez was elected unanimously.

Mr. FOSTER said, he had resigned because the duties of the office required too much of his time.

The CHAIRMAN expressed the great regret of the board, himself, and colleagues, at the retirement of Mr. Foster, whose judgment and advice had always been highly estimated by the board of directors. (Hear, hear.)

Mr. ROTHERY then moved a vote of thanks to the chairman and directors which was seconded by Mr. FOSTER, and agreed to unanimously, when the meeting separated.

The Royal British Bank monthly return, published in Tuesday's *Gazette*, gives the assets at 323,074*l.*, including preliminary expenses, cash credit, securities, convertible securities with promissory notes, bills of exchange discounted, and cash. The liabilities comprise 100,000*l.* of capital stock, and 223,074*l.* of deposits and other liabilities.

ANALYSIS OF BANCA TIN.

At the request of the Dutch Government, M. Mulder undertook a chemical analysis of Banca tin, the result of which was, that this article in the state in which it is usually met with in commerce is found to be of extreme purity, and contaminated with but a very small proportion of foreign metals. A considerable number of analyses were made, more particularly for the purpose of correctly ascertaining the real atomic weight of tin, the correctness of the usually received number having been several times called in question during the progress of these researches. The following are the results of some of the analyses:—Twenty samples of tin, the produce of different mines and obtained at different periods, were analysed in the following manner: A piece of metal taken from the interior of the sample was treated with nitric acid; the solution was mixed with a small quantity of water, and separated from the oxide of tin by filtration. The following results were thus obtained:—

1.	8·597	grains of metal gave	10·9335 grains of oxide.
2.	8·841	" "	11·263 "
3.	9·975	" "	12·713 "
4.	11·181	" "	14·262 "
5.	9·082	" "	11·550 "
6.	12·009	" "	15·275 "
7.	12·706	" "	16·162 "
8.	13·443	" "	17·086 "
9.	9·609	" "	12·208 "
10.	8·764	" "	11·152 "
11.	10·080	" "	12·816 "
12.	9·196	" "	11·692 "
13.	10·174	" "	12·937 "
14.	12·185	" "	15·479 "
15.	9·304	" "	11·330 "
16.	9 253	" "	11·759 "
17.	8·090	" "	10·291 "
18.	10·518	" "	13·379 "
19.	10·349	" "	13·166 "
20.	8·521	" "	10·830 "
	201·787		256·7735

Admitting that 100 parts of the oxide of tin contain 78·1616 of metal and 21 334 of oxygen, 100 parts of the different samples contain the following quantity of pure tin:—

1.	99·99	11.	99·95
2.	100·15	12.	99·95
3.	100·19	13.	99·88
4.	100·35	14.	99·87
5.	100·00	15.	99·96
6.	100·00	16.	99·91
7.	99·99	17.	100·00
8.	99·92	18.	100·00
9.	99·88	19.	100·01
10.	100·04	20.	99·92
			20) 1999·96
			99·998

To ascertain the quantity of oxide of tin remaining in the solution, all the filtered liquors are mixed and evaporated almost to dryness; the oxide separated during this operation was found to be 0 2210 grains, corresponding to 0·1651 grains of tin. The filtered solution was then saturated with sulphuretted hydrogen, when a brown coloured precipitate was formed, soluble in nitric acid; on evaporating to dryness, and treating the residuum with water 0·0061 grains of oxide of tin was obtained, representing 0·0048 grains of tin. The watery liquor, mixed with sulphuric acid, deposited 0·0376 of sulphate of lead, corresponding to 0·0257 of lead, and when evaporated and gently calcined, gave also 0·317 of sulphate of copper, representing 0·0126 of copper. The filter, which had been employed to collect the sulphate of copper and lead, when decomposed by nitric acid, gave no trace of any metallic substance. The liquor, from which the sulphurets of lead and copper had been separated, gave, on the addition of ammonia, a precipitate of 0·0570 grains of oxide of iron, corresponding to 0·0395 of iron. The absence of other metals was assured by testing for them in the usual well-known methods. The Banca tin is thus composed:

Iron	0·0395		0·019
Lead	0·0257		0·014
Copper	0·0126		0·006
Tin	201·7992		99·961
Total	201·8770		100·000

And contains only 4·10·000ths of foreign metals.

From these analyses it will be evident that Banca tin is a metal of extraordinary purity, and inferior to none found in commerce. It results from these analyses, that the 201·7992 grains of pure tin contained in the Banca metal give by the action of nitric acid 259·9896 grains of oxide of tin. These numbers give 78·524 of metal, and 21·476 of oxygen as the composition of oxide of tin, and for the atomic weight of this metal 731·23. In 1835 Berzelius found the atomic number to be 735·296, which has been generally adopted hitherto. The analyses above given are not, however, of a nature to furnish us with a means of deducing the exact value of the atomic weight of tin, although they certainly show that some attention on this point is necessary. In order to resolve this question, repeated dosing of the liquors must be made to give up every trace of oxide of tin, and every precaution employed, which the nature of these investigations require. 100 parts of perfectly pure tin, reduced by different processes to the state of oxide, gave 127·56, 127·56, and 127·43 parts of oxide—the atomic weight calculated from the first and second experiments is 725·07. These analyses were made by M. Vlaanderen. This result brings tin with the series of metals, the atomic weight of which is expressed by a multiple of that of hydrogen; the number 725, which is 58 × 12·5, may be adopted for the equivalent of tin, as the difference of 0·7 is not appreciable. The composition of oxide of tin would be—78·38 of metal and 21·62 of oxygen.

MINERALS FROM NATAL.—We last week stated that we had received specimens of anthracite coal and plumbago from this interesting colony, and we have now been favoured with a description of the localities where they are found. Anthracite is found in at least three different fields; the specimen we have came from Weenen, in the Impafana district, in latitude 29° 40′ south, longitude 28° 40′ east, 60 miles north-west of Pietermarisburg, the capital, and is found in layers from 9 to 15 inches thick; 40 miles south-east of this, there is another similar bed, somewhat thicker; and 40 miles to the north of Weenen, in the Umzünyati district, there is a much more extensive field, of superior quality, and much thicker, being from 6 to 9 feet in thickness. In each case these are the outcrops, and it is not improbable they form in depth one extensive basin. There are also some indications, giving hopes of discovering coal 15 miles from the port, which would be of very considerable importance. The specimen of plumbago came from a spot about 20 miles north of Pietermarisburg; there are vast quantities of it, and though of poor quality, it will answer for many purposes, and better may be found. Mr. Christopherson has a specimen of Natal copper, which was assayed last week, and produced from 25 to 30 per cent. pure metal. There is an abundance of iron ore, and the Surveyor-General considers the colony rich in mineral.

THE GREAT COAL FIELDS OF NORTHUMBERLAND AND DURHAM.—In all mineral districts, a matter of the first importance is the obtainment of a good and correct surface plan of the various parishes, townships, rivers, ownerships of the various properties, &c.; and when we consider the importance of the coal trade to the public at large, the numerous interests involved in the counties of Northumberland and Durham, and the extent and value of this large coal field, a well engraved map of the district appears a desideratum which we are happy to see has been efficiently supplied by Mr. I. T. W. Bell, surveyor, from actual survey, and has been engraved in the first style of art, by Messrs. Lambert, of Newcastle-upon-Tyne. In 1843 Mr. Bell published, on a larger scale, the Hartlepool district, with a portion of the Wear district, showing the ownership of the entire land, forming the first of an intended series of plans but we are not aware if they were continued or not. The map now under notice is 46 inches by 36 inches, and embraces a district of country extending from Stockton-upon-Tees to Middlesborough in the south, to the Coquet and Warkworth in the North: from the German Ocean eastward, making a coast line of about 50 miles, to Woolsingham in the county of Durham, and Bywell, Northumberland to the westward, comprising an area of upwards of 1100 square miles; the whole being laid down on a scale of one inch to the mile. Upon this map are accurately depicted and clearly defined, the various collieries and colliery railways, public railways and stations, parishes, townships, market towns, boroughs, cities, villages, mansions, farmhouses, iron works, harbours, docks, shipping places, turnpike and cross-roads, with all the boundaries and places of interest, in the important districts of the Tyne, Wear, and Tees, with those of Seaham, Hartley, Hartlepool, Blyth, and Warkworth. The engraving is executed in a first rate syle, clear and distinct, and the colouring unexceptionable. To capitalists, coal owners and viewers, and the geologist, this publication must prove a valuable adjunct to other local information, and we trust that the publishers will be well repaid for the spirited undertaking of so valuable a source of useful information.

SAFETY STEAM-ENGINE.—A Virginia paper states that Mr. Tippet, after great labour and discouragement, "has produced a beautiful one-horse power model, the working of which more than justifies the hopes of the most sanguine. It dispenses entirely with boilers. The steam is raised by means of a small jet of cold water injected upon a large plug of iron fixed in the furnace, and of sufficient bulk to retain the heat that might be dissipated; by a very simple but perfect contrivance, this steam enters the cylinders, and moves the piston in a manner similar to a common engine. The amount of power is limited only by the strength of the materials. It is infinitely less complex than the common engine, and it is believed that for a given amount of power it can be more economically worked; but the great beauty is its immunity from accidents. It is utterly impossible for an explosion of any extent to occur, for the simple reason that there is nothing in it larger than a cylinder to explode.

THE PHOTOGRAPHIC REGISTRATION OF MAGNETICAL AND METEOROLOGICAL CHANGES.

In 1847, the Royal Society received a communication from Charles Brooke, Esq., M.B., F.R.S., &c., containing a "Description of an Apparatus for the Automatic Registration of Magnetometers, and other Meteorological Instruments by Photography." The great importance of this subject to the full development of the science of terrestrial magnetism, the increasing interest which is felt by the geologist and practical miner in the precise direction of the magnetic needle, and the mysterious fluctuations to which that direction is subject, together with the recent improvements which have been effected in the general plan of operation, induce us to believe that a few words upon the subject will be acceptable to many of our readers. It will be at once obvious that, as the movements of the magnetic needle are generally very minute, they must be magnified by optical and mechanical arrangements, so as to be at all times distinct and unmistakeable in their registered indications; and, further, that as every moment of the 24 hours is more or less liable to changes, with reference to the manifestations of terrestrial magnetism, some light, independent of the sun, which shines only during a part of this period, must be employed for producing the required photographic marks upon the chemically-prepared paper. Mr. Brooke appears to have supplied these primary desiderata in a very successful and effective manner. A suspended magnet, 2 ft. long, 1¼ in. wide, and ¼ in. in thickness, carries upon its vertical axis a metallic reflector, which, receiving the actinic ray from a fixed lamp of peculiar construction, throws it upon the surface of the prepared paper, which is rolled round a glass cylinder, revolving in connection with a time piece. The speculum weighs about 1 lb., is 4 in. in diameter, and of about 16 in. focus. The weight of the whole arrangement is about 4½ lbs.; and the suspension is effected by means of strong silk.*

In the first two or three years of these experiments, a camphine lamp was used for the above purpose; and this is even employed to a certain extent now. It is placed behind a screen, through an aperture of which it throws forth a cone of rays very slightly wider than the mirror upon which it impinges. The photographic paper is prepared by washing with a solution of 5 grains of isinglass, 12 grains of bromide, and 8 of iodide of potassium in an ounce of distilled water; and then, when thoroughly dry, it is rendered sensitive by brushing with a second solution, consisting of 50 grains of nitrate of silver to 1 oz. of distilled water.

The paper is now ready for use—that is, if camphine is employed as the source of illumination; but if common oil, which has many advantages over camphine, is adopted for this purpose, then an additional degree of sensibility must be given to it; and this is effected by washing with water, and afterwards a second time with nitrate of silver, passing a glass rod, or piece of tube, two or three times over the paper with a gentle pressure, between each application. When the cylinder carrying the paper has completed a revolution in 12 or 24 hours, as the case may be, the latter is to be removed, and washed with a solution, consisting of 20 grs. of crystallised gallic acid in 1 oz. of distilled water (hot), when the curve produced by the reflected and concentrated point of light will, in five minutes, become visible. The gallic acid must then be washed off by the repeated application of soft water with a soft brush, and then the photograph may be fixed by means of a solution of 12 grs. of hyposulphite of soda to 1 oz. of distilled water. It is proper to observe that the image of the vertical slit through which the light passes is, after reflection from the speculum, condensed to a point by the intervention of a lens. Some very perfect but expensive lenses for this purpose are manufactured by Lerebours, of Paris. Mr. Ronalds's mode of effecting the self-registration of magnetical and meteorological changes differs principally from that of Mr. Brooke in the use of silvered plates instead of prepared paper.

* These are the proportions and general arrangement of the instrument employed at Toronto, as given in a paper by Captain Lefroy, R.A., F.R.S., in *Silliman's Journal*, to which we are indebted for considerable information upon this interesting subject.

PRICES OF MINING MATERIALS.—JUNE, 1850.

CAST-IRON.

Cylinders, cases, covers, pistons, piston caps, nozzles, air-pumps and covers, for engines, under 80 inches diameter, bored and turned	26s per cwt.
The aforegoing for 80-inch and upwards	2s extra.
Cylinder bottoms, condensers, and bottoms	19s per cwt.
Ditto ditto for 80-inch engines (and above)	2s extra.
Steam and Eduction Pipes, straight and crooked	8s to 11s per cwt.
Feed ditto ditto	8s to 10s ,,
Beams, cast open	10s ,,
Ditto, cast close	14s ,,
Gudgeons, troughs, shafts, bearing and top blocks, sockets and saddles	9s ,,
Gudgeons and shafts turned, and bearing and top blocks fitted	12s ,,
Fly-wheels, complete (cast-iron only)	11s ,,
Segments and arms for ditto	9s ,,
Centre-pieces for wheels, capstans, &c.	11s ,,
Ditto bored	13s ,,
Spur wheels, 1 cwt. and above	10s ,,
Under ditto } 4s. per cwt. extra, } if bored	12s ,,
Bevil ditto }	12s ,,
Ditto, under 1 cwt.	16s to 24s ,,
Cranks	9s 6d ,,
Ditto, bored	13s. to 21s ,,
Hot-water cisterns	11s ,,
Manhole branches and doors	14s ,,
Ditto, faced	16s ,,
Fire-door frames, sleepers, and fire-bars, cast open	6s 6d ,,
Ditto ditto, cast close	8s 6d ,,
Dampers and frames, cast open	7s 6d ,,
Ditto ditto cast close	8s 6d ,,
Boiler stands	6s 6d ,,
Plain pumps, 4-inch bore and above, and windbores	7s ,,
Short ditto	8s ,,
Hollow stools for beams	10s to 13s ,,
Working barrels	13s ,,
Ditto, under 4 inches	16s ,,
Plunger, knee, and H-pieces, and clack-seat pieces, under 4 feet long	12s ,,
Doors and bottoms for ditto	6s 6d ,,
Ditto, cast close	8s ,,
Clack-seat pieces, with doors	10s ,,
Plunger poles for shaft work, 6 inches diametet, and above	22s ,,
Ditto, under 6 inches, or above 10 feet long	24s ,,
Stuffing-boxes and glands, bored	19s ,,
Valves, seats, and clacks	9s ,,
Ditto ditto, turned	14s ,,
Air-pipes, 4 inches diameter, and 6 feet long	7s, 6d each.
Whim shieves, 4 feet diameter, light pattern	16s ,,
,, 3 feet 6 inches ,,	14s ,,
,, 3 feet ,,	12s ,,
,, 2 feet ,,	8s ,,
,, 1 foot 6 inches ,,	7s 6d ,,
Capstan and whim-shieves, all sizes, heavy pattern	8s 6d per cwt.
Flat-rope shieves	8s 6d ,,
Ditto, bored	11s ,,
Tram wheels	8s ,,
Ditto, bored	12s ,,
Tram saddles	9s ,,
Stamp heads	6s 6d ,,
Ditto, with long shanks	8s ,,
Cams for stamp axles	7s 6d ,,
Bucking plates	6s 6d ,,
Crushing rolls, cast in sand	7s 6d ,,
Ditto, cast in chills	8s 6d ,,
Mandrills	14s ,,
Ditto, turned	20s ,,
Pillars	9s to 10s ,,
Grate plates, open	8s 6d ,,
Ditto, close	11s ,,
Open-top water pipes	10s ,,
Iron borings	6s ,,
Ditto, fine	7s ,,
Feed-pole cases, with stuffing-boxes and glands, bored	24s ,,
Kibble monlds	10s ,,
Shaft pulleys	8s ,,
Ditto, bored, 4s. per cwt. extra.	
Sampling plates	11s ,,
Frames for crushers	10s ,,
Stamp tongues	9s ,,
Steam boxes	21s ,,
Drags	11s ,,
Anvil blocks	9s ,,
Chain guides	8s ,,
Stamp guides	11s ,,
Dressing plates, and backs for grates, cast open	8s 6d ,,
,, ,, cast close	12s ,,
Shoes for drags	9s ,,
Hawse pipes	20s ,,
Plough chips	10s ,,
Barrow wheels	11s ,,
Furnaces, in green sand	10s ,,
Ditto, in loam	12s ,,
Wheel and pipe boxes	16s ,,
Hearth eyes	10s ,,
Block tin and ingot moulds	13s ,,
Hammers, anvil faces, and bits	11s ,,
Clock and sash weights	8s ,,
Grate castings	14s to 16s ,,
Paul plates	14s ,,
Weights adjusted—¼ cwt., 6s. 6d.; ½ cwt., 3s. 6d.; 14 lbs., 2s.; 7 lbs., 1s. 4d.; 4 lbs., 10d.; 2 lbs., 8d.; 1 lb., 5d.; ½ lb., 4d.	
Single screw valve boxes complete, with brass valve-spill and cross-bar, viz.: 4 in., 4l. 10s.; 3½ in., 3l. 15s.; 3 in., 3l. 3s.; 2½ in., 3l.; 2 in., 2l. 10s. each.	
Boring working barrels	5s per inch.
Turning plunger poles	7s ,,

[*To be continued in next week's Mining Journal.*]

CORNISH STEAM-ENGINES.

The number of pumping-engines reported for the month of May is 27—the quantity of coals consumed being 2988 tons, lifting, in the aggregate, 27,000,000 tons of water 10 fathoms high—the average duty of the whole is, therefore, 52,000,000lbs. lifted 1 foot high by the consumption of a bushel of coal.—The following have exceeded the average:—

Mines.	Engines.	Length of stroke	Load in pounds.	Load per sq. inch on plat.	Strokes per min.	Consump. of coal in bus.	Millions lifted 1 foot by consump. of 1 bush.coa	Lifted 1 foot by 1c. of coal.
Great Work..	Leed's 60-in. ..	9·0	55,343	15·2	7·5	2472	60·0	72
East W. Crofty	Trevenson's 80	10·33	82,333	12·2	6·1	3726	54·6	65
Carn Brea	Sims's 50 & 90	9·0	60,882	24·1	4·8	2032	52·8	63
Poldice	Sims's 85-inch	10·33	77,545	9·5	10·0	5112	57·1	68
S. Wh. Frances	75-in.	11·0	57,298	10·6	5·2	2184	63·4	76
United Mines	Taylor's 85-in.	11·0	96,921	15·5	6·1	5078	61·0	73
Ditto	Cardoza's 90-in.	9·0	100,682	13·8	7·3	5378	56·4	67
Ditto	Eldon's 30-inch	9·0	13,631	16·0	8·2	656	66·5	79
Ditto	Loam's 85-inch	10·0	87,947	11·6	7·7	4818	54·8	65
Ditto	Hocking's85-in.	10·0	97,817	14·4	7·6	5617	57·7	69
Treleigh Con.	Garden's 60-in.	10·25	34,865	9·8	4·8	1512	53·0	63
Tywarnhayle..	Gardiner's80-in	10·0	75,928	12·0	7·8	4870	55·8	66
East Wh. Rose	Penrose 70-in.	10·0	77,003	18·0	4·6	3102	58·0	69

JOINT-STOCK BANKS.

Shares.	*Companies.*	*Paid.*	*Div. p. cent.*	*Price.*
22,500	Australasia	£40	£1½	£25
20,000	British North American	50	6	42 42½
20,000	Colonial	25	5	7
20,000	Commercial of London	20	6	24
10,000	London and County	20	6	—
60,000	London Joint-Stock	10	6	17½
40,000	London and Westminster	20	6	27½
10,000	National Provincial of England	35	6	37
10,000	ditto New	10	5	—
20,000	National of Ireland	22½	5	18½
20,000	Provincial of Ireland	25	8	44
10,000	South Australia	22½	6	20 20½
30,000	Union of Australia	25	6	32½
60,000	Union of London	10	6	12⅝ ⅞
15,000	Union of Madrid	40	—	—

WATER-WORKS.

Shares.	*Companies.*	*Per Share.*	*Div. p. cent.*	*Price.*
4,433	East London	100	8	166
7,000	Grand Junction	50	4	75
2,000	Kent	100	3½	77
970	Lambeth	100	5	97
1,500	New River London Bridge Water Ann.	—	2½	53
1,150	Southwark and Vauxhall	100	5	98*
8,294	West Middlesex	—	6	115 116

CURRENT PRICE OF GOLD AND SILVER.

Foreign gold, in bars ....per oz.	£3	17	9	New dollars.....per oz.	£0	4	10
,, Portugal pieces....	0	0	0	Silver in bars (standard)	0	4	11¼

THAMES TUNNEL COMPANY

The number of passengers who passed through the Tunnel in the week ending June 15, was—No. of passengers, 14,360.—Amount of money, £59 18s. 4d.

EXPORTATION OF THE PRECIOUS METALS.—The following are the official returns of the exports of gold and silver from the port of London for the past week:—Gold coin to Hamburg, 200 ozs.; bars to Dunkirk, 5000 ozs.; dust to Havre, 262; dust to Belgium, 625 ozs.—Silver coin to Belgium, 15,000 ozs.; ditto to Madras and Calcutta, 1800 ozs.; bars to Belgium, 7276.—Total gold, 6087 ozs.; silver, 40,276 ozs.

PRACTICAL MINING v. SCIENTIFIC THEORY.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Being a poor working miner, I have not had an opportunity of seeing your valuable Journal so often as I, perhaps, otherwise should; I have, however, of late endeavoured to get a glimpse at it at least once a week, more particularly so since Mr. Nicholas Ennor and a few others have made themselves so very conspicuous in your columns. Being more accustomed to use the *pick and gad*, than I am the *pen*, I beg you will excuse a few blunt remarks, and grant them a short space in your next Number. In looking over Mr. Ennor's letter respecting Crebor Mine (which, from what I have heard of it, will most likely prove a very productive one), a person would almost imagine that mining was no longer a *speculation*, but a *certainty*. Parties about to take up a new concern have only to get out plans and sections, and forward them to Mr. Ennor for inspection; by return you get an answer as to whether the lode will prove productive or otherwise; this to me looks very glaring, and I must admit it is an easy and economical method for *proving lodes*, but very much doubt that the hidden treasures of the earth are be got at quite so easy. I do not wonder at his friend being so paralysed at such stuff as not to answer his letter. My comrade, a man who knows Crebor *well*, says that he is quite sure that in one part of the section where they have *killas* marked down, it is *elvan*; and where they give the strata at a certain inclination, it takes quite a contrary dip: so much for your plans and sections. I would ask, how is it possible for a man to give anything like a correct opinion on a lode in cases of this sort? I say it is not. I admit that it is a very desirable feature in mining that we should examine the strata through which the lodes traverse, and in order to do this, get a good practical mine agent—one that has been brought up from his childhood with the *pick and gad* in his hand—one that has spent the greater portion of his time in the bosom of the earth; and, consequently, become practically acquainted with the strata: let him inspect for you; that man's opinion is worth a host of theorists. Again, Mr. Ennor says—"It is quite correct that it is plans of this sort that we want to enable us to discover some of the earth's natural laws," &c. Should an inhabitant of another region happen to drop in upon us just now, he would, from this, be almost led to suppose that mining was only just begun? Surely, Mr. Ennor forgot, when writing the above, *that millions of tons of mineral* were discovered long before these theorists began to figure with their pencils and pen; and would, undoubtedly, continue to be so, even if these men of science were to disappear to-morrow. It is an old saying, yet a very true one, "where it is, there it is," and venture you must to find it. I could name different mines in this part, where the opinion of these men was asked, and, in each instance, the mine was condemned to death; but, fortunately for the parties concerned, they still went on, and the mines are now dividend-paying ones! I, therefore, contend that it is useless any man attempting to say what the earth contains before he has been through to see—*search and ye shall find, but not else.* I should just like to see Mr. Nicholas Ennor down to our "bal" next survey-day to price our pitches and bargains for us; I venture to say we should several of us get pretty good *starts.* This gentleman is unknown to me, but from what I have heard of him, I think he knows more about *raising slate* than he does about mining, as I hear it is between 30 and 40 years since he did anything in it; so, what he learnt in his youthful days, I should say was blasted with the many cold December months which have since passed over his head.—A WORKING MINER: *Callington, June* 19.

SOUTH PLAIN WOOD MINE.

SIR,—I was much surprised, on my return from Devonshire this week, to see the shares in this mine quoted at a less premium in your Journal of last Saturday, than in the two preceding Numbers; for, having paid a visit to the mine with Messrs. Caunter and Palk, of Ashburton, gentlemen so well qualified to judge, I was quite satisfied, with them, that the appearances of it were most promising, and the indications in the adits such as would justify the shares being at three times the present price. I had, previously to going there, heard very flattering accounts from Capt. L——, of Wheal Franco, and others of mining experience, who had been over to see it, and I was not at all disappointed. The works are progressing very rapidly, and on cutting the lodes already seen on the other side of the river, there can be no doubt of the returns being very large; indeed, that which they are already raising is what miners call "saving work." I have some beautiful specimens of yellow and peacock ore at my chambers, that I brought from the mine, which I shall be happy to show to any of my brother shareholders, for whose gratification I venture to give this account.—A SHAREHOLDER: *June* 20.

SOUTHERN AND WESTERN MINING COMPANY OF IRELAND.—This company the formation of which we noticed in 1847, having been incorporated by Royal Charter, and raised a paid-up capital of 25,000*l.*, purchased the Gurtivallig Mine for 20,000*l.*, and the remaining 5000*l.* was absorbed in expenses for charter, buildings, quays, dressing-floors, &c. A call of 6s. per share was afterwards made, but the commercial panic which ensued so straightened many of the shareholders, that only four thousand responded to the call, and the works were, consequently, obliged to be suspended. It is now proposed to issue some of the shares which had been surrendered to the directors at par, 2*l.* 10s. per share, in order to raise 10,000*l.*, which will render any further call highly improbable, and enable the directors immediately to set the mine to work with that spirit which its importance deserves. The elevation of this mine above the sea varies from 12 to 100 fms., thus affording an opportunity of working by levels, and rendering unnecessary expensive steam and other apparatus for draining, generally so large an item in mining operations; at the same time, the ores and waste are trammed out, and the former carried to the dressing-floors, from whence they are shipped with the greatest facility. It is situated about two miles east of the Sheepshead promontory, which divides Bantry Bay from Dunmanus Bay, and in the vicinity of the Berehaven Mines, which have yielded copper ore to the extent of 500,000*l.*, and are now producing a profit of from 40,000*l.* to 50,000*l.* per annum; the lode is of the same description, containing near the surface large quantities of quartz, gossan, mundic, and stones of yellow copper ore, continuous in size, and with a regular underlie. All preparatory operations are completed, railways laid down, dressing-floors, reservoirs, incline planes, for shipping ore, dressing-houses, sheds, smiths' and carpenters' shops, and 10 good miners' cottages. The capital raised will, therefore, be *actually* employed in the development of the mine, and the directors in Ireland have no objection to the establishment of a London board, to have the direction and entire control of its expenditure.

ACCIDENTS.

Merthyr.—Thomas Phillips, working by one of the Rhydewr mine pits, was killed by a fall of earth on Friday last.

Llanelly.—The engine-boiler at the Penlwyngwyn Colliery exploded with such terrible force, that the fireman, a lad of 14 years of age was so severely injured that he expired after much suffering.

Percy Main Colliery.—As James Brymer was working in Howdon Pit, the noise made by the men filling coals had distracted his attention from the state of the roof, which had not been properly propped, for a large stone fell from the roof upon deceased's shoulders, dislocating one of them, and thence rebounding upon one of his thighs, which it broke also. The poor fellow was immediately brought to the bank, and medical assistance procured, but, after lingering in great agony he died.

Walsall.—H. Barnett met his death while working in a limestone mine. He had just "fired a shot," but, not properly taking effect, he was struck down by a quantity of stone loosened from the top by the explosion, and killed on the spot.

Inundation of a Coal Mine by a "Crownings-In."—A very striking instance of the awful dangers which literally hang over the heads of a mining population, occurred on Tuesday last. The casualty to which we refer was an alarming specimen of what is locally known as a "crownings in," that is to say, a subsidence or sinking of the surface soil, in consequence of mining operations going on beneath—the present one, however, happening to occur in the bed of an arm of the Birmingham Canal, which runs up to the iron furnaces of Mr. Hickman, at the back of St. Mary's Church, Bilston. It passes over a mine of coal belonging to William Baldvin, Esq., several of whose shafts skirt its banks, and the pit in question is worked by Mr. Fellows, one of his battles. At the time, the pit's company were assembling after dinner, in order to descend the shaft and commence their work, when suddenly the water of the canal was observed to rush with great velocity towards a central point, where a sort of gulf appeared to have been formed, into which the water poured itself in immense volumes. Those who witnessed this at once guessed the cause, and they immediately dropped some planks into the canal a little higher up, making a sort of temporary "lock," by means of which they cut off all connection with the main body of water. As soon as possible, a large body of men were set to work to fill up the gap which had been evidently made in the bed of the canal, and sundry cart loads of straw and soil were swallowed up, bushes all the trees and bushes within reach, before their object was accomplished. Long before this could be satisfactorily effected, however, the whole of the water in the upper portion of the arm had been emptied, while the remainder of the branch, and even the main canal itself, for a considerable distance, had also sunk several inches. Some idea may be formed of the immense quantity of water thus discharged, when we state that the canal branch is six or seven hundred yards in length, with an average depth of nearly three feet. The "crownings-in" proved to be five or six yards broad. A number of boits which were loading at the wharf, belonging to the furnaces, were nearly sucked into the regions beneath, but fortunately the antiquarians of some five or six centuries hence were saved the trouble of inquiring whether they were canoes used by the ancient Britons, as they were taken into safe keeping by the mud before the water could carry them sufficiently far. It appears that the men employed in the pit had been working under the very spot in the course of the morning, and they would have been so again in the course of the afternoon. Only a few minutes before the accident occurred, also, a number of boys were bathing at the place, so that the hand of Providence does, indeed, seem to have interposed to prevent an awful loss of human life. The water appears to have ultimately found its way into some workings situated on a lower level than those into which it broke, as but little inconvenience has been caused to the pit by the inundation. Mr. Baldwin, we need scarcely add, has always taken every precaution to prevent a calamity of this description.—*Birmingham Journal.*

Mr. Swinburne, an English engineer, has arrived in Switzerland to make the preliminary preparations for laying out lines of railway previous to the arrival of Mr. Stephenson, who is expected in August.

Dr. Chevalier, of Paris, is reported to have discovered a disintoxicating mixture. It is composed of acetate of ammonia, dissolved in sugared water; and a dose of it is said to make a drunken man immediately sober.

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—Field's engine-shaft is sunk about 2 fms. under the 70 fm. level—lode enlarging, and of a more promising nature than in the 70 fm. level; the mundic appears to be leaving, and in its place there is a small quantity of copper ore, which we think is very favourable. The lode in the 70 fm. level west is 4 ft. wide, containing a small quantity of copper, but not of any value as yet. The lode in the 70 fm. level east is 5 ft. wide, 4 ft. of the south part is nearly all solid copper ore, worth from 60*l.* to 70*l.* per fm. Since the last report we have discovered the south wall of the lode in the 60 fm. level east, and find that the lode is taking its proper course east, and is about 2½ ft. wide, principally composed of iron and spar. There is no change to notice in any of our other tutwork operations. The tribute pitches are looking well.

BARRISTOWN.—The lode in the 30 fm. level end east is about 1 ft. wide, very regular, composed principally of blende, with occasional stones of lead. The lode in the rise in the back of the 26 fm. level is cut off by a slide, and the men employed in driving north, to discover the other part of it. A party of men stoping in the eastern end of this rise have a good stone of lead. The men that were employed in cutting south from the bottom of the winze, under the 30 fm. level, are now sinking to communicate with the 40 fm. level cross-cut, which we hope will be accomplished in a week or ten days; the ground in this cross-cut has been very favourable for driving for the last few fathoms. There is no change in the cross-cut south from the 18 fm. level.

BEDFORD UNITED.—The lode in the 103 fm. level east is 8 ft. wide, and yielding from 3 to 4 tons of ore per fm.; the men in this end have been put to rise against Bray's winze, in which the lode has yielded 5 tons of ore per fm.; there is no alteration in Andrew's winze in this level. In the 90 fm. level we are still driving by the side of the lode; the lode in Bray's winze, in this level, is 2½ ft. wide, and worth about 4 tons of ore per fm. There has been no lode taken down in the 80 fm. level; the pitch in the back of the 80 fm. level is still looking very well. In the 70 fm. level east the men are engaged stripping of the capels previous to taking down the lode.

BLACK CRAIG AND CRAIGTON.—The engine is now nearly completed and I expect by the end of next week it will be ready to commence drawing the water from the bottom workings, and as soon as these are cleared up we shall be able to set a considerable number of men to work on ore now standing. In about four months I think we shall have no difficulty in raising 100 tons per month from this part, and in a few months more, after the levels and workings get extended, we shall be able to raise a considerably larger quantity. The tribute pitches in the old workings are still doing well, and the men are making good wages; but, as we are so near getting the water out from below, where there is such an extent of whole ground, I have thought it not advisable to set many bargains in the old ground. We have lately made a very valuable discovery near the south-eastern extremity of the sett, by making a small trial on the roadside vein, close to Palmore river, where we got a good quantity of ore near to the surface. It is supposed that this new vein will intersect the Cairnsmore lode on coming into our sett, and a few fathoms from this trial; but the chief value of this discovery is the connection of this new vein with Black Craig main lode, which it will intersect about 200 fms. from the trial referred to, and at the junction with which there can be no question that a large body of ore will be found. Within the last few days I have proved the new vein to continue its course a considerable distance on the north side of Black Craig main lode, where it will intersect the Daltonmay lode, which is also in our sett. We have got the new horse-whim to work on Clayton's shaft on the eastern ground, and which is down 20 fms.; the lode is very kindly, and in a short time we expect to get into good ore at this place, at it is where two large strings or branches come into the lode.

CALLINGTON.—The lode in the 125 fm. level north is about 9 inches wide, yielding saving work for silver-lead ore; no lode has been taken down in the 125 fm. level south since last reported. In the winze sinking below the 100 fm. level south the lode is large, producing work of coarse quality; the diagonal shaft, sinking below the 100 fm. level, is now down to the back of the 112 fm. level; we calculate it will take us another week to complete the shaft to the bottom of the level, and prepare for sinking below. In the 112 fm. level north, at the south mine, the lode is about 6 in. wide, producing saving work; in the winze sinking below the 112 fm. level south we are opening tribute ground. At Kelly Bray, the engine-shaft is now down 3 fms. below the 40 fm. level—ground not quite so favourable for sinking as last reported. We shall sample, on Thursday next, the 20th inst., about 45 tons of rich silver-lead ores.

CARADON VALE.—In driving the adit level, we have m et with a very important discovery—viz.: a course of lead, about 6 inches wide, of very good quality: this, although quite unexpected, is of much importance, and some cwts. of lead ore have already been brought to grass. It is supposed to be the Trelawny lode.

DAREN.—The mine is looking remarkably well. The stopes in level Coed still yield ore for 5 or 6 ft. wide, and the level driving below has just touched some strings of copper. We are not stoping the back of level Canal, as we have a large quantity of ore on the surface—I should say 20 tons of lead, and 10 tons of copper, spalled for the crushing mill. The level Coed adit is now out open all the way, and waiting for the rails to lay the railroad, and the road is nearly completed from the mouth of level Coed to the crushing mill. We have nothing new in any other part of the mine.

DEVON AND COURTENAY.—Our pay and setting were on Friday last when I re-let the engine-shaft to sink at 17*l.* per fm., which is 3*l.* less per fm. than we gave the last month, and the men make good wages still. The shaft is now down 6 fms. 3 ft. 6 in. below the 50 fm. level, and which is about 9 fms. below the bottom of the Tavy river, where we had a favourable change of ground, and some good stones of ore last week, when the lode left the shaft; if this favourable change of country continues, I shall be disappointed if we do not get on improving in the next level, especially on the south lode, as there has been several tons of ore raised of good quality between the 40 and 50 fm. levels. The pitches are fast working away, being shallow, but still there are two pitches working at 13s. 4d. In 17. The rise from the 50 to the 40 fm. level is holed, by which the ventilation of the costean part of the mine is greatly improved. The 50 end is at present poor.

EAST BALLESWIDDEN.—The men are still employed in clearing the adit on the flat lode, and we have discovered another lode going across the East and the Rose lodes; and, from what can be seen in the levels, the ancient tinners must have raised immense quantities of tin from this lode, as all the backs are completely worked away, and the small deads we find in the levels will produce a good van of tin. This lode, with all others in going west, will fall in with our main and parallel lodes, where, according to the laws of mining, they must form a junction, and, wherever they form an intersection, we shall find large deposits of tin. I find that all the small deads in the level will pay for dressing. We have seen six lodes, and all of them productive, so that I am fully convinced we shall have a good mine here. I enclose you a tin bill for 20*l.* 3s., for tin raised in the adit level. I am perfectly satisfied with the quantity and quality. It fetched at the rate of 47*l.* per ton.

EAST CROWNDALE.—Since my last report we have cut the north wall of the lode in the 40, and find it from 20 in. to 2 ft. wide, producing good work. We have since that taken down a piece of lode farther east, which is not so good, but still producing good stones of tin. We hope to get our drawing machine to work next week. Our last parcel of tin has arrived at Truro, and will be weighed off early in next week. Nothing more to notice this week.

EAST GUNNIS LAKE JUNCTION.—All our operations are progressing rapidly. The wheel-pit is excavated, and the masons are fully employed on the walls. The smith's shop is ready for roofing, and the other buildings are in a forward state. The axle of the wheel is all but completed, and the ring and other castings will be ready by the time they are wanted.

EAST TAMAR CONSOLS.—The lode in the 90 fm. level continues to be much the same as when last reported, being large, and but slightly productive. In the 80 end south the lode is easier for driving, and worth 6 cwts. of lead per fm. In the 60 end south the lode is composed of soft spar, gossan, and ore, and altogether very kindly. In the 80 end north it is about 2 ft. wide, and worth from 8 to 9 cwts. of ore per fathom. In the 26 end, north of Church-lane shaft, the lode is kindly, and producing about 6 cwts. of ore per fm.; in the 26 fm. level, north of the engine-shaft, the lode is producing very good and profitable work; in Caroline's shaft the lode is composed of soft spar and gossan, with about 5 cwts. of lead per fm. Gullett's shaft is clearing under the 54 fm. level from surface. The second plunger-lift is fixed, and all made complete down to this depth. The water continues to recede, which greatly facilitates the clearing of the shafts. The tribute department remains without any material alteration. The parcel of ore, computed at 70 tons, and sold to Messrs. Locke, Blackett, and Co., has been shipped: the actual weight is 69 tons 19 cwts. 2 qrs.

ESGAIR LLEE.—The caunter lode in the deep adit, west of the junction, is looking quite as well as last reported, and has a very promising appearance; and the same lode, in Owen's winze, below the 12 fm. level, never was more productive than at the present time. The same lode that led us to the caunter in the deep adit, east of the cross-cut, has, during the past week, crossed the caunter in the 12 fm. level, east from surface; this lode is running about east and west, and is 6 ft. wide, composed principally of the first quality gossan, mundic, blende, and lead, and has a very promising appearance; and, judging from its general character, I have much reason to think this lode, as we proceed eastward, will prove a productive one; and, as soon as we communicate this level on the caunter to Morgan's winze, we will open some ground on this promising east and west lode. This lode, in the deep adit, heaved the caunter south 6 ft., and most likely about the same distance in the level above, and we are driving south to cut same; the caunter held good home to the heave. The caunter lode in Harding's winze, below the mouth of the shallow adit, now down 3 fms., is much the same as last reported; also the stopes in bottom of the shallow adit, west of Morgan's winze. The erection of our machinery is rapidly proceeding to completion, but the weather during the past week has been against our laying out the dressing floors. Mr. Humphrey's, the builder, is pushing the repairs of the Plynlimon Hotel with all speed, and you shall have his plan and specification to complete the other five dwellings in the course of a few days.

HAWKMOOR.—The 30 fathom level has been driven west 2 fms. 3 ft., and the lode is full 3 ft. wide, and worth 3 tons per fm.; this level has been extended east about the same distance, and will, perhaps, produce from 1 to 1½ ton per fm. The shaftmen have to-day begun to cut the plat, &c., preparatory to again commencing to sink. The 20 fm. level east is still a good end for ore, but not so rich as it was; we have set a winze on tribute, in the bottom of this level, near the present end, which will produce fully 4 tons per fm.; the same level west has now a lode 3 ft. wide, composed of fluor-spar, peach, mundic, and good stones of ore—a very promising lode; the pitch in the back of this level has produced 5 tons of good ore in the last fortnight, and still looks well. We sampled on Tuesday, the 11th inst., 31 tons 10 cwts. of good quality ore, the produce of May month.

HEIGNSTON DOWN CONSOLS.—The 35 fm. level, east of the cross-cut, maintains its character, and is fully equal in value with last week's report; the winze sinking below this level produces good saving work for copper ore; the cross-cut south, in this level, is without alteration. The 45 fm. level, east of Victor's winze, is, I am glad to say, improved since last reported on, producing at present some good saving work for copper ore; the cross-cut south, in this level, is without important alteration. The lode in Hitchins's shaft, sunk below the 20 fathom leve', is without any alteration since it was last reported.

HOLMBUSH.—We have got through the small cross-course in the 132 fm. level, west of the diagonal shaft, and are now cutting in south of it to intersect the caunter part of the lode, which we hope will be a good one, from the appearance of the lode over it, which at present is productive. The lode in the 120 fm. level south is 6 ft. wide, composed of soft quartz, prian, and stones of lead. The ground in the 120 fm. level south cross-cut, towards the flap-jack lode, is very favourable, and is driven 87 fms. in that direction, out of 98 fms., the estimated length to reach the lode, agreeably with the underlay, as seen in the 100 fm. level—the nature of the stratum is everything we can wish for. The lode in the 110 fm. level south is 20 in. wide, producing stones of lead; the flap-jack lode, in the 100 fm. level, east of the great cross-couse, is 2 ft. wide, and will produce 3 tons of copper ore per fm.; the pitches in the back of the level are not so productive as they were.

KIRKCUDBRIGHTSHIRE.—The lode in the 62 fm. level end west is 3 ft. wide, worth 6 cwts. of lead to the fm. The lode in the rise is 4 ft. wide, worth 8 cwts. of lead to the fm. We hope the water will be out for the men to work in the 62 fm. level, at Stewart's, by Monday morning.

KINGSETT AND BEDFORD.—We have completed our machinery, and have commenced dressing. The lode in the end, driving south of the rise, is producing some very good work for lead; it is from 3 to 4 ft. wide, the greatest part saving work for dressing. I hope we shall soon go to market, as we shall commence stoping the backs, where there is good work for lead; and if it continues as in sight, it will more than pay cost, &c.

LEWIS.—In the 80 fm. level, east and west, the appearance of the lode is kindly, with stones of tin. We have commenced sinking the engine-shaft under this level, with favourable ground. Cock's lode in the 70, east of copper ore shaft, is disordered by a cross flookan; the south lode in the 70, east of tin shaft, is small, but rich for tin. Cock's lode in the 60, east of copper ore shaft, is opening tribute ground. The new lode lately discovered in the 80 fm. cross-cut, south from tin shaft, is 2 in. wide, good work for tin. By driving east from copper ore shaft, on Cock's lode, we have intersected a new lode, and are driving west on it—1 ft. wide, good work for tin. Cock's lode in the 40 fm. level, east of copper ore shaft, is 1 ft. wide, worth 3*l.* per fm.; ditto west, the lode is 1 ft. wide, producing stones of tin. The south lode, in the 40 fm. level, east of copper ore shaft, is 10 in. wide, unproductive. The south lode, in the 30 fm. level, east of copper ore shaft, is 1 ft. wide, opening tribute ground. Ralph's lode in the 30, east of copper ore shaft, is 3 in. wide, worth 3*l.* per fm. The south lode in the 20, east of copper ore shaft, is 8 in. wide, worth 2*l.* per fm. Cock's lode in this level east is 6 in. wide, good work for tin. The tribute ground is looking well.

NORTH BULLER.—Our operations at North Buller are proceeding very satisfactorily. We have stones of rich copper ore both on King's lode and Lousia's lode; and our miners feel confident that we are within a few fathoms of something very good; both shafts are at present entirely free from water; and the sinking them progresses as rapidly as possible. In bringing up the level from the western boundary, on the course of King's lode, we shall shortly intersect the great cross-course, running through the district from north to south, near which we hope to find the lode productive of copper, as was the case in West Buller. As I have before stated, it is simply a question of depth with us—there being not a shadow of a doubt of our having, sooner or later, a very rich mine.

PENZANCE CONSOLS.—The stopes under the 18 fm. level are very much improved since last report. In opening some ground in the western end we have discovered a good lode of tin. The pitches on the north lode are looking as well as ever, and Boyne's pitch is very much improved; the other places in the mine are looking much the same as when last reported.

ROCHE ROCK (Tin).—We have brought up a level for taking off the surface water from the foundation for the engine-house; and the excavation is now nearly completed. Mr. West will mark out the buildings to-morrow; and the masons will proceed with all possible dispatch. The cost of engine-house, boiler-house, and stack, will be about 650 to 700 perches, at the price named in my former letter. In a few days, the engine you bought at the Charlestown Mines will be taken abroad, and will, no doubt, be delivered on the mine in good time.

SOUTH TAMAR CONSOLS.—The improvements noticed in my last report have been fully maintained during the last fortnight. The ends north and south, in the 112 and 100 fm. levels, are easy for driving, and opening excellent tribute ground. The lode in the 80 and 70 ends south is daily improving, and confirms the expectations of getting through the hard ground in the course of the present month. The lode in the 90 end is still small and wrung up. In the 30 south the lode is producing good work. Glynn's shaft is cleared to the 80 fm. level, and the men are now making good progress towards the 90, which is the greatest depth of this shaft. The tribute department is in a very healthy state, and affords every prospect of our being able to increase the returns. We sampled on Monday last a parcel of ore, computed at 76 tons. I have instructed Mr. West to furnish specifications for the steam-engine, and he has promised to let me have them on Friday next, when I shall forward them to all the foundries in the neighbourhood. I hope shortly to see Mr. Rogers respecting the ground required for stamp floors, &c. I should be glad to have a grant from the east of Mount Edgcumbe, so as to be acquainted with the terms, and know the exact boundary east and west.

SOUTH WALES MINES.—I cannot speak of any alteration in the lode in the shaft sinking below the surface, 100 fms. east of the old workings, since my last report, the lode being 3 ft. wide, and producing some good saving work.

SOUTH WHEAL TRELAWNY.—The ground in the engine-shaft is very favourable, and sinking by six men below the 50 fm. level in the 9 fms. We also mentioned last week we were making a search south of the cross-cut in the 50 fm. level, to cut the lode under the slide, and we are still doing so. With respect to the lode north of the cross-cut, there has not been a great deal done, the men having been engaged in cutting south; it is much the same as reported last week as regards size and strata—everything is in a regular course of working.

TAMAR SILVER-LEAD.—In the 205 end the lode is 6 in. wide, composed of capel and ore. In the 190 end there has been no lode broken since last reported on. In the 175 end the lode is disordered by a small slide course. In the 160 end the lode is 2 ft. wide, 1 ft. of which is good work. In the 145 end the lode is 3 ft. wide, interspersed with ore, and yielding work of a moderate quality. In the 135 end the lode is 6 in. wide, composed of fluor-spar, with cubes of ore. Spurgin's shaft is sunk 2 fms. below the 145 fm. level, the lode in which is 3 ft. wide, 18 in. of which is producing work of a promising character. At the north mine, the engine-shaft is sunk 10 fms. 2 ft. 6 in. below the 80 fm. level; in the end driving north, in this level, the lode is 18 in. wide, 6 in. of which is good work. Our last parcel of ores, computed 80 tons, was sold to the Tamar Smelting Company, at 19*l.* 11*s.* 6*d.* per ton.

TINCROFT.—In the 100 fm. level, driving west of Palmer's shaft, the lode is 2½ ft. wide, worth 7*l.* per fathom for copper. In the 90 fm. level west the lode is 3 ft. wide, worth 6*l.* per fm. In the 80 west the lode is 2 ft. wide, worth 6*l.* per fathom for copper. In the 36 fm. level, driving west of Stainsby's shaft, the lode is 1½ ft. wide, with stones of ore. At North Tincroft we have completed the shaft to the 110 fm. level, and in the course of a day or two we shall commence driving east. In the 110 fm. level west the lode is 6 ft. wide, worth 40*l.* per fm. for copper. In the 100 fm. level, east of Willoughby's shaft, the lode is 3 ft. wide, worth 12*l.* per fathom for tin and copper. In the 100 fm. level, west of engine-shaft, the lode is 7 ft. wide, worth 35*l.* per fathom for copper. In the 90 fm. level, east of Willoughby's shaft, the lode is 3½ ft. wide, worth 10*l.* per fathom for tin and copper. In the 90, west of engine-shaft, the lode is 4½ ft. wide, worth 40*l.* per fathom for copper; in the winze sinking below this level the lode is 4 ft. wide, worth 25*l.* per fm. for copper. In the 80 fm. level west the lode is 3 ft. wide, worth 5*l.* per fathom for copper; in the winze sinking below this level the lode is 3 ft. wide, worth 15*l.* per fathom for copper. On Highburrow tin lode, in the 152 fm. level, east of the engine-shaft, the lode is 6 ft. wide, worth 28*l.* per fathom. In the 142 fm. level, east of Martin's east shaft, the lode is 4 ft. wide, worth 16*l.* per fathom. In the 132 fm. level east the lode is 4 ft. wide, worth 16*l.* per fathom; in the winze sinking below this level the lode is 5 ft. wide, worth 15*l.* per fathom. In the 110 fm. level, driving east from Cook's Kitchen, the lode is 4 ft. wide, worth 5*l.* per fathom for tin and copper. In the 100 fm. level, east of Downright shaft, the lode is 3 ft. wide, worth 25*l.* per fathom for tin; in the 100 west the lode is 6 ft. wide, worth 18*l.* per fathom for tin and copper. In the winze sinking under the 90 fm. level west the lode is 8 ft. wide, worth 30*l.* per fm. for tin and copper. In the 90 east the lode is 3 ft. wide, worth 9*l.* per fathom for tin. Grout's lode, in the 80 fm. level west, is 8 ft. wide, worth 60*l.* per fathom for copper; in the winze sinking below this level the lode is 7 ft. wide, worth 65*l.* per fm. for copper. In the 70 fm. level west the lode is 6 ft. wide, worth 12*l.* per fathom for copper; in the winze sinking below this level the lode is 5 ft. wide, worth 9*l.* per fathom for coppdr. At Wheal Providence, the lode in the engine-shaft, sinking below the 43 fathom level, is 3 feet wide, with spots of ore. In the 43 fathom level west the lode is 2½ feet wide, but poor.

TRELEIGH CONSOLS.—On Christoe lode, in the 100 fathom level, west of Garden's shaft, the lode is 20 in. wide—not much ore. In the 90, west of ditto, the lode is 2 ft. wide, worth 16*l.* per fm. In the winze below the 80, on the north part, the lode is 20 in. wide, worth 10*l.* per fm. The rise above the 70, west of Garden's, is holed to the winze below the 60 fm. level. The men are driving the 70, west of Garden's. In the 70, west of Garden's shaft, the lode is 3 ft. wide, worth 12*l.* per fm. The winze below the 60 fm. level is holed to the rise above the 70 fm. level; the men will stope the back of the 70 next week. The 52 cross-cut, north of the engine-shaft, is driving north to cut Parent lode. The 40 cross-cut, south of ditto, is driving south to cut the middle lode. In the rise above the 40, east of engine-shaft, the lode is 18 in. wide, with stones of ore. In the adit east of Nicholson's shaft, the lode is 2 ft. wide, with stones of ore.

TRETHEVY.—The engine, I expect, will go to work on Saturday, and from the accounts I hear from the working miners, there is a very promising lode in the bottom end, producing some large stones of solid copper.

WEST WHEAL JEWEL.—In the 85 fm. level, west of Williams's cross-course, on Wheal Jewel lode, the lode is producing stones of ore. In Treweek's winze, in the 70 fm. level, west of ditto cross-course, on the same lode, the lode has not been taken down in the past week, when last taken down it was worth 4*l.* per fm.; Carkeek's winze, west of ditto, is worth 15*l.* per fm. The winze in the 57, west of ditto cross-course, on the same lode, is unproductive. The 57 fm. level, west of ditto cross-course, on the same lode, is unproductive; the 57 fm. level, east of Hodges's cross-course, on Tolcarne tin lode, is worth 25*l.* per fm. The shallow adit level, west of Tregoning's shaft, on the same lode, is worth 6*l.* per fathom. The deep adit level, west of ditto shaft, on the same lode, is unproductive. The 12 fm. level, west of ditto shaft, on the same lode, is unproductive; the stopes in the back of the 12 fm. level, on the same lode, west of Pryor's winze, are worth 15*l.* per fm.; the stopes in the bottom of the same level, on the same lode, east of Tregoning's shaft, are worth 26*l.* per fathom; the stopes in the bottom of the same level, on the same lode, west of Tregoning's winze, are worth 25*l.* per fm. These stopes are working on tribute.

WEST WHEAL VIRGIN.—The work here is progressing favourably; the water-course is completed, and the men have commenced the erection of launders for carrying the water to the wheel. We are preparing the place for the bob-pit, and making a leat, and on Monday we shall put the wheel to work; and as soon as the water is out of the mine, we intend to set the engine-shaft to sink immediately by six men on the course of the lode, and expect shortly to send you a good report. I enclose you a tin bill for 10*l.* 2*s.* 6*d.* This tin was broken in the shaft in the course of sinking, and fetched at the rate of 47*l.* per ton.

WHEAL HARRIET.—The adit level east on the north cammter lode, is being driven by six men, and is worth 25*l.* per fm., the strata (granite) being soft and easy for driving, and most congenial for the production of copper. The shallow adit level is being cleared up, and as soon as the forebreast is reached, we shall cut through the cross-course. I hope to find the lode as good east as it has proved to the west of the cross-course. In the general arrangements for effectively working the mine we proceed as satisfactorily as can be expected.

WHEAL TRELAWNY.—At Phillips's shaft, in the 82 fm. level north the lode is 3 ft. wide, worth 9*l.* per fathom; in the same level south the men are still rising against the winze, where the lode is 2½ ft. wide, worth 8*l.* per fathom. In the 62 north the lode is 2½ ft. wide, worth 9*l.* per fm. In the winze in the bottom of the 72, south of the shaft, the lode is 1½ ft. wide, worth 6*l.* per fm. At Trelawny's shaft, the 92 cross-cut is driven west 4 fms. 2 ft., the ground much as before. In the 82 north the lode is 4 ft. wide, worth 7*l.* per fm.; in the same level south the lode is 3 ft. wide, worth 8*l.* per fm.; we are rising in the back of this level, north of the shaft, in killas, for ventilation. In the 72 north the lode is 3 ft. wide, worth 12*l.* per fm.; we are sinking a winze in the bottom of this level against the rise above referred to. At the north mine, in the 68, north of Trehane, the lode is 1 ft. wide, worth 4*l.* per fm. The winze in the bottom of the 55 is suspended at present for want of air; the lode in the rise in the back of this level is 6 ft. wide, worth 6*l.* per fm. In the 40, north of Smith's, there is no improvement. In the winze in the bottom of the 40 the lode is split in small branches, with some lead. Our stopes are just the same as last week.

FOREIGN MINES.

ALTEN MINING ASSOCIATION.—Estimated produce for May:—

Mines.	Tons of Ore.	Per Cent.	Fine Copper.
Raipas	50	7	3·50
Old Mine	60	5	3·00
United Mines	30	5	1·50
Michell's	16	7	1·12
Carl Johan's	7	9	0·63
Mancur's	1	5	0·05
Total	164		9·80

Mining Report from the 14th May to the 4th June.

Raipas.—During last fortnight the great quantity of snow-water flooding the mine has completely driven us out of the bottom workings, and the men have since been employed on less remunerative work at the surface, in consequence of which the returns have been less than we expected, but still show a trifling improvement on those of last month. In the great stope the ore is still disseminated throughout the lodes, and the per centages are still low; but, on resuming this working, we hope to meet an improvement. The 20 fm. workings, on Labouchere's, are still disordered, and the value of the returns from this part has been very fluctuating; the prospects however, continue good, and we feel confident of a more successful result after the subsidence of the water, which is now fast disappearing through the crevices in the mountain. The other places have undergone no change, and by employing the hands on the halvans and backs of the lodes we do not anticipate that any further deterioration in the monthly produce will be found. The Alten river has risen very much, and prevented us from returning our last month's ore. All traffic across is now suspended for a few days, and we shall not be able to recommence the driving before the beginning of July, when we hope again to be able to make the usual satisfactory returns.

United Mines.—The improvements last noted at Ward's continue favourable, but we can scarcely expect any increase in the returns before the lode is explored farther to the eastward. The operations at Woodfall's are principally confined to the backs, from which a small parcel of good ore has been produced.

Old Mine.—The tribute operations at this mine continue to yield favourable results, and the prospects during the past month have somewhat improved. Slungi's sink developes itself favourably, and the prospects continue favourable. We are now subject to much inconvenience from water, but hope it will be but temporary. The new sink, towards the north-east, is also improved, but the ground continues hard and difficult to drive; we intend opening the lode for a stope, and expect some good returns of ore; the prospects continue flattering. On the main lode, north-west of Bergmester's, we have been obliged to suspend operations, in consequence of the thaw, but we shall resume that working as soon as the snow has disappeared. In the meantime, we have resumed the south cross-cut, where the prospects are very cheering. Some good gossan ore has been raised here. The ground in the adit is somewhat harder, but the men, nevertheless, make very fair progress.

Mancur's.—The great influx of water compels us to suspend the operations at this mine, and during the summer we can expect but little, if any, return of ore.

Michell's.—The ground in the level in the new sink is hard, and the men make but slow progress; the lodes are still divided, but the ore is of the usual rich quality. Nellin's lode continues to produce some small parcels of ore, but the prospects have not improved. The produce for May is small, in consequence of so many of our tributers being employed unloading and ballasting the vessels.

Carl Johan's.—The new sink is rather less productive, but the lode, although continued, yields ores of a good per centage; the last discovery is promising, yet the returns, notwithstanding the good quality of the ore, are still below our expectations.

LINARES MINES.—The following has been received from Mr. H. Thomas:

Linares, June 8.—The workings and prospects of the mine continue this week without much change. The two pitches in the back of the 45, west of the engine-shaft, are very good, and the same may be said of the pitches east in the back of the same level. The men stoping the 45, in order to make a good level, find the lode at present hard; but from the appearance a little in advance, this may be expected soon to change. Altogether our tribute department has never looked so well as at present. The lode in Wilson's shaft contains good stones of lead. In this, as well as in San Juan and Shaw's shafts, the men are making fair progress in sinking.

Lead Ore in Store 8th June, 1850.

June 1.—To account, as furnished	*Arrobas*	2601	4	
„ 8.—Weighed in		1347	6	
Surplus		513	5	4461 15
By loading for Seville				3084 0
To next account				1377 15

Seventy tons of lead ore was sold to Pontifex and Wood, at 11*l.* 3*s.* 6*d.* per ton.

UNITED MEXICAN MINING ASSOCIATION.

Mexico, May 13.—Mine of Rayas.—I have to enclose, as usual, Mr. Parkman's monthly report in detail of operations. The improvement in the workings of San Crescencio and San Cristoval, mentioned in my last letters, has fortunately continued, notwithstanding the variable character of this portion of the mine; and a small lot of 60 to 70 cargas of rich ore has been sold at an average of 87*l.* per carga. The working of San Ignacio has also yielded a similar kind of ore in small quantity, which, however, is now nearly exhausted. The other productive points do not present any material change; but the total quantity of picked ore has increased by 450 cargas, as compared with the preceding month, against an additional outlay of $1274 1 1, and a decrease of $434 2 4 in the sales with buscones.

Mine of Aldana.—The shaft having reached a depth of about 155 varas, I am hourly expecting tidings of the vein having been cut by it, and in good ore. This being accomplished, the vein will be further tested, and I hope to good purpose, in the cross-cut communication with the shaft.

Mine of Promontorio.—With the exception of better threads of ore having appeared in the frente of San Feliciano, this mine offers nothing worthy of remark.

Mine of Jesus Maria y Jose.—The shaft being in soft ground further timbering is necessary, and the sinking has consequently been suspended for that purpose. The cross-cut to the shaft is, however, continued.

Remittances.—The amount of funds for Tampico proving small, the destination of the month's conducta from Guanaxuato has been changed for Mexico, to leave on the 20th instant; and having given instruction to send by it the necessary funds, I have been enabled to purchase a bill for 3000*l.*, the first of exchange of which, at 60 days' sight, is enclosed herewith to the order of the chairman of the court.

Report on the State of the Workings in the Mines of Rayas, Aldana, Promontorio, and Jesus Maria y José.

Guanaxuato, April 29.—Mine of Rayas—*Buscones.*—The works in which they are employed continue poor, and very little demand for the ore produced.

Frente of Santo Toribio.—This work has advanced in four weeks 8·59 varas, and has varied from day to day. Last week it had become very poor, since which it has again improved. In the pozo of San Diego, and in a frente which has been opened to the south-east, there has been no material change.

Frente of San Diego.—This work has advanced 6·52 varas, and not having met with any favourable indications, it has been changed towards the lower wall of the vein, as was mentioned last month.

Crucero of San Ambrosio.—Having driven this work even further than was contemplated, and the ground continuing very unpromising, the work has been suspended.

Workings in Ore.—In the contra cielo of La Purisima the ore has declined. In San Antolino there has been no change. San Ignacio has, during the month, given a small quantity of very rich ore, but this cannot be expected to continue, as the place is nearly worked out. In the pozo of San Crescendo there has been no material change, but the pozo, frente, and contra cielo, of San Cristobal, which are about 20 varas more to the north-west, continue in fair ore, and have improved during the month; more than one-half of the produce of the mine is at present derived from the last-named works. The average number of barmen employed by day and night during the month is 68, and the produce, in the meantime, of ore remitted to the hacienda, is 3250 cargas.

Mine of Aldana.—The shaft of this mine has been sunk in five weeks 12·35 varas, making the total depth of 151·16 varas. It is presumed that this work will reach the vein in less than two weeks from this date, the cross-cut of Santo Toribio, towards the shaft, having been driven 3·54 varas, and communicated two weeks since. We hope, therefore, to commence during the month of May to test the vein in two different points —viz.: in the shaft, and in a cross-cut from Santo Toribio.

Mine of Promontorio.—The level of Santa Catalina has advanced in five weeks 6·60 varas in hard vein, with very little ore. In the same time San Feliciano has advanced towards the upper wall of the vein 4·09 varas, in which some promising threads of ore have been cut through, which it is proposed to follow to the north-west.

Mine of Jesus Maria.—In three weeks the shaft has been sunk 11 varas, making its total depth 72·19 varas. It has been necessary to suspend the sinking, in order to timber a portion which is considered dangerous. This will, in all probability, be concluded in about two weeks. The work in the mine has progressed slowly, owing to the want of workmen, caused by the severity of the cholera in this district.—S. P. Parkman.

GUADALCANAL MINING ASSOCIATION.

The adjourned meeting of shareholders was held at the offices of the company, Broad-street-buildings, on Wednesday, the 19th inst.

George Knight Huxley, Esq., in the chair.

The Chairman commenced by stating that, at the last meeting, they had received a report from Capt. Rule, who had been dispatched to the mines to inspect them. As Capt. Rule then was expected in England, the directors had adjourned the meeting until his arrival, that, in event of any shareholder wishing to ask any particular questions, or obtain any further information, he could personally obtain it from that gentleman. Capt. Rule was now present, and would be happy to answer any questions; perhaps it would be as well previously that Capt. Rule's report should be read. This being done (which was published in our last Number), he wished to know if Capt. Rule had anything material to remark? [Capt. Rule said, he fully confirmed all that he had written.] It now remained for them to say, after hearing the report and Capt. Rule's opinion, whether they should proceed with the works, or at once wind up. Out of the 5000*l.* new capital subscribed, they had received but 4264*l.* Their expenditure to March last had been 3424*l.* 6*s.*, and since then something like an expenditure of 400*l.* per month had been incurred. There had been some supplies of ores sent to England. The aggregate value of this might be probably 620*l.*; from this, brokerage, commission charges, &c., had to be deducted, so that, in all probability, it would realise about 550*l.* If they were to form a new company, his plan was, that the incoming parties should receive all, and they would liquidate it as well as they could. They had sent out provisional notices to the people on the works, so that they might be prepared, in the event of the works being stopped.

A Shareholder asked, what would be the minimum rate at which the works could be carried on?—Capt. Rule said, that in the estimate he delivered in, he had calculated it at 300*l.* to 350*l.* per month. His advice was, that their forces should be concentrated on the Pozo Rico vein. Experience had proved that, as they went deeper, the ore had diminished; he should recommend driving on the shallow levels. The expense required in Spain to keep up a legal right to the mines was not much.

The Chairman said, he held in his hand a letter from Capt. Michell, in which he stated the lowest expense at which the mines could be worked monthly would be 250*l.*; this was exclusive of payments to miners' wives and families in England, office expenses, &c., which might be reckoned at another 100*l.* The debt due to the Spaniards in August next would be 620*l.* Up to the present time, they had expended 14,500*l.*; this included the erection of buildings, steam-engines, &c. They had no funds in hand; and he wished to know what steps were to be taken?

It was proposed, there being but a small number of shareholders present, to adjourn the meeting for a fortnight, with a view of putting the property in liquidation.

The Chairman said, if they adjourned for a fortnight, the affair would liquidate itself; the company would die, and all would be lost.

A long and desultory conversation ensued, in which Messrs. Duncan, Field, Philips, and La'Mert took an active part. In the course of this, it was elicited that a balance was supposed to be due from the shareholders on account of some shares they had allotted to their friends, who had not paid their calls—the shares being at that time at a premium. It was stated the duty of the directors would have been to have sold them, and placed the money in the company's coffers.

The Chairman stated that, as far as he was concerned, he considered it a point of honour to pay the difference in those shares which his friends had taken up. They had other liabilities. Not only did the shareholders wish to make them liable for the amount, but they had the liabilities in Spain and in England. The parties engaged did not know the shareholders; but the directors were contracting parties, and liable to be sued.

Ultimately, it was moved by Mr. Field, and seconded by Mr. La'Mert, that it is the opinion of this meeting that the existing company should be dissolved, and all its affairs liquidated with as much speed as possible; that the directors be requested to pass the proper resolutions for carrying this opinion into effect.—It was also proposed that a committee should be formed, to comprise three influential shareholders and three directors, to bring forward some proposition for the re-construction of the association.

A vote of thanks was moved to the chairman, and the meeting separated.

CONDURROW MINING COMPANY.

At a meeting of adventurers, held at the mine on the 17th inst., a statement of accounts was presented and allowed, showing—By sale of ores of tin and copper, 1896*l.* 19*s.* 11*d.*; balance end of March, 209*l.* 18*s.* 9*d.*=2106*l.* 18*s.* 8*d.*—Labour cost for April and May, 1358*l.* 6*s.* 9*d.*; merchants' bills, 606*l.* 10*s.* 6*d.*; lords' dues (1-20th), 94*l.* 17*s.*—leaving balance in favour, 47*l.* 4*s.* 5*d.*

The following report, from Capt. N. Vivian, was read to the meeting:—

June 17.—Since the meeting held on the 15th April, the 40 fm. level has been holed to the bottom of Woolf's shaft; the old workings cleared and exposed, and found, as it is most commonly the case in abandoned mines, very poor, not offering sufficient inducement for tributers to venture on them, and this has been the case in all the old workings I have seen, the former owners having invariably taken away all the ore and tin as completely as it can be done at this day; however, with perseverance, we shall, I have no doubt, make important discoveries in this quarter, as we have done in other parts of the concern. In driving the 40 fm. level from Pryce's shaft to Woolf's shaft, a distance of 105 fms., not a stone of valuable mineral was found; yet under this ground is the most productive part of the mine. The ore ground in the 80 fm. level continues quite as good as last reported. The last sale fell short of our usual complement, owing to the suspension of the stopes in the 80, whilst holing a winze from the 70. We shall, judging from present appearances, sample as much from this place as we have ever done. The 80 west, on Llandower lode, now designated Roberts's lode, continues large and productive, and seems to hold a course parallel to the main lode, and 3 fms. north of the same. There is a cross-cut driving in the 90 fm. level to cut it. The 80 cross-cut is also driving north of Roberts's lode, in search of the canster lode and branches, from which there seem strong reasons to expect much ore ground. There are cross-cuts also driving towards Llandower lode in the 40 east of Hope's, 50 west of ditto, 60 west of Pryce's, 20 east of Woolf's, on the cross-course. The ground is much changed from the 40 to the 70, east of the ore ground in the 70, and I strongly believe that a good mine will be found at deep levels eastwards. The proceeds credited this account differ only 107*l.* 12*s.* 2*d.* from the last account, and the profit would be in the same ratio, but for the extra cost charged for sundries connected with the new engine, buildings, cuttings, &c. The engine will be at work in a few days. The ground is cut for the new stamps wheel, the masonry contracted for, castings ordered, and the stamps will be in operation against our next account. We are cutting ground in the 90 fm. level, preparatory to sinking Pryce's shaft, which is set to sink in the 100 fm. level, at 20*l.* per fm.

CRANE AND BEJAWSA MINES.

The first meeting of adventurers in these united mines, which are situated near the town of Camborne, was held at Tyack's Hotel, in that town, on the 7th inst., for the purpose of determining the mode of working, and other matters. A series of resolutions were adopted, of which the following is an abstract:—That the mines are to be conducted on the Cost-book System, and to be divided into 256 parts, or shares; that Richard Lanyon, Esq., be appointed purser; Captain S. Lean, manager; Captain Henry Stephens, the underground agent; Messrs. Lanyon, surgeons; Messrs. Hocking and Loam, engineers; and Messrs. Tweedy and Co., bankers; that the Nangiles engine be accepted at 95*l.* (70-in. cylinder); that the engine-house, smiths' and carpenters' shops, account-house, &c., be immediately commenced; that a call of 2*l.* per share be immediately made, and paid to the bankers. In pursuance of these resolutions great activity is manifested in carrying them into execution. Many miners are employed in raising stone for the buildings, &c. We have been informed that the company is of high respectability, embracing the greatest capitalists in Cornwall; so much confidence is reposed in the responsibility and integrity of the proprietors and officials, that the shares are readily sold at 10*l.* each. There are three champion lodes from Roskear intersecting the sett; also a caunter lode, only two of which have been tested at all below the adit, which was done about 50 years ago, a horse-whim drawing the water. The working of these mines would have been resumed ere this but for some obstacle to the attainment of the grants, which have now happily been removed.

WHEAL TREMAYNE MINING COMPANY.

At a meeting of adventurers held at the mine on the 14th inst., a statement of accounts was presented, showing—Balance in hand last account, 444*l.* 18*s.* 2*d.*; by sales of copper ores, 886*l.* 4*s.* 2*d.*; black tin, 1950*l.* 4*s.* 7*d.*; arsenic, 162*l.* 12*s.* (less lords' dues, 74*l.* 19*s.* 6*d.*); carriage of tin and other charges, 61*l.* 2*s.* 7*d.*=3430*l.* 2*s.*—Mine cost and merchants' bills for March, 1198*l.* 1*s.* 8*d.*; for April, 1255*l.* 12*s.* 5*d.*—showing balance in favour of mine, 976*l.* 7*s.* 11*d.*—By payment of dividend of 10*s.* per share—leaves balance in hand, 464*l.* 7*s.* 11*s.*

The following report, from Capt. R. Williams, was read to the meeting:—

June 14.—At Painter's shaft, on the south lode, in the 30 fm. level west, the lode is 16 in. wide, composed of gossan, mundic, and brint, with stones of ore of a very good quality, having a more promising appearance than it has had for the last 15 fms.: the new whim-shaft sinking towards the same level is down to the adit level, the ground is rather harder than usual; the sumpmen are engaged changing the pit-work, and fixing flat-rods from Wheal Margaret shaft to Painter's shaft, which will be set to work next week. Painter's shaft is sunk 6 feet under the 30 fm. level, the lode in which is 15 in. wide, composed of flookan, mundic, and spar, spotted with ore. At Madron's shaft, the lode in the 70 fm. level west is 1 ft. wide, worth 3*l.* per fathom; in a rise above this level, east of the shaft, the lode is 2 ft. wide, opening tribute ground; in the same level a cross-cut has been driven south 6 fms., and intersected a branch 3 in. wide, producing some tin. In the 60 fm. level west the lode is 18 in. wide, worth 5*l.* per fathom; in a winze sinking under the 50 fm. level, the lode is unproductive. At Laurie's shaft, on the north lode in the 30 fm. level west, the lode is 1 ft. wide, unproductive; Champion's shaft, sinking under the adit level, is south of the lode, but we expect to intersect it about the 10 fm. level—this shaft is situate in the centre of the productive tin ground we had at and above the adit level. At Allen's shaft, the 53 fm. level west on branch is worth 7*l.* per fm. The 53 fm. level, driving east of flookan, on south branch, is worth 12*l.* per fm.; this level, from Allen's shaft to the new shaft is communicated, and the men are stripping down a branch in the side of the level, worth 10*l.* per fm. The 45 fm. level, west of Allen's shaft, on south branch, is worth 7*l.* per fm. The boundary engine-shaft is completed to the 53 fm. level, nine men are engaged sinking under the level for bearers and cistern, which will be completed in a few days; the branch in the shaft is disordered by a floor of spar. The boundary engine is all in the house, and the pitwork nearly all in the mine—the engine we hope to get to work by the end of next month. The tin tribute department is looking much the same as for some time past; a little falling off may be expected in the copper sampling next time, but we hope to increase shortly after sinking Painter's shaft, and to do as well for the next two months as we have for the past.

STRAY PARK, CAMBORNE VEAN, AND WHEAL FRANCIS MINES

At a general meeting of adventurers, held at the mines, on the 14th inst. the accounts were presented, showing—

Copper ores sold, 509 tons 3 cwts.	£2614	9	4		
Balance in hand (last account)	494	12	8		
Profit from Wheal Francis in March and April	37	3	6	£3146	5 6
Tutwork cost in March	£ 460	8	0		
Ditto April	411	9	1		
Merchants' bills in March	212	2	5		
Ditto April	161	11	11		
Tribute pay on ores sold 4th April	201	18	5		
Subsist advanced on ditto	266	13	4		
Lords' dues payable on ditto	108	18	8	£1823	1 10

Showing balance in favour of adventurers of 1323*l.* 3*s.* 8*d.*—By dividend of 15*s.* per share (750*l.*) leaves now in hand, 573*l.* 3*s.* 8*d.*

The average gettings of miners in March and April months had been—tutworkmen, 2*l.* 11*s.* 6*d.*; tributers, 2*l.* 12*s.*

The accounts were passed, and the dividend of 15*s.* per share agreed to.

Messrs. S. Davey, J. Harvey, R. Lanyon, M. H. Williams, F. Pryor, together with the purser and manager, were appointed the committee for the ensuing year; thanks were voted to Mr. Vawdrey, for his extra exertions, and the economical manner in which he has managed the affairs of these mines.

The following report, from Captains R. Eustice and E. Ralph, was read to the meeting:—

In the 56 end driving west, in Camborne Vean, on the north branch, by two men, at 4*l.* per fm., the lode is 6 in. wide, yielding stones of ore. In the 80 end driving west, in Wheal Francis, by two men, at 7*l.* per fm., the lode is 9 in. wide, yielding stones of ore. In the 90 end driving west, in Wheal Francis, by two men, at 9*l.* per fm., the lode is small and unproductive. In the 100 end driving west, in Wheal Francis, by four men, at 10*l.* per fm., the lode is 1 ft. wide, yielding 1 ton of ore per fm. In the winze sinking below the 100 fm. level, in Wheal Francis, by four men, at 10*l.* per fm., the lode is 18 in. wide, yielding 1½ ton of ore per fm. In the 100 end driving east, in Stray Park, by two men, at 4*l.* per fm., the lode is small and unproductive. In the 110 end driving west, in Wheal Francis, by four men, at 10*l.* per fm., lode small and unproductive. In the

winze sinking below the 110 fm. level, in Camborne Vean, by four men, at 9*l.* per fm., the lode is 16 in. wide, yielding 1½ ton per fm. In the rise above the 120 fm. level, in Camborne Vean, by four men, at 12*l.* per fm., the lode is 18 in. wide, yielding 2 tons of ore per fm. In the winze sinking below the 120 fathom level, in Camborne Vean, by six men, at 8*l.* per fm., the lode is disordered by the cross-course. In the rise above the 150 fm. level, in Camborne Vean, by four men, at 10*l.* per fm., the lode is 1 ft. wide, yielding 1 ton of ore per fm In the 150 end driving west, in Wheal Francis, by two men, at 7*l.* 10s., the lode is small and unproductive. In the 150 end driving west, in Camborne Vean, on the north lode, by four men, at 10*l.* per fm., the lode is 18 in. wide, yielding stones of ore. In the 170 end driving west, in Camborne Vean, by four men, at 9*l.* per fm., the lode is 2 ft. wide, yielding stones of ore. In the 170 end driving east, in Camborne Vean, by six men, at 7*l.* per fm., the lode is 3 ft. wide, yielding 3 tons of ore per fm. In the stopes above the back of the 170 fm. level, east of the eastern winze, by six men, at 4*l.* per fathom, the lode is 3 ft. wide, yielding 3 tons of ore per fm. In the stopes above the back of the 170 fm. level, west of the eastern winze, by six men, at 4*l.* per fm., the lode is 4 ft. wide, yielding 5 tons of ore per fm. In the slopes below the 170 fm. level, east of the eastern winze, by six men, at 3*l.* 10s. per fm., the lode is 3 ft. wide, yielding 4 tons of ore per fm. In the stopes below the 170 fm. level, west of the eastern winze, by six men, at 3*l.* 10s. per fm., the lode is 3 ft. wide, yielding 3 tons of ore per fm. In the 180 end driving west, by two men, at 8*l.* per fm., the lode is 1 ft. wide, and unproductive. In the 180 end driving east, by four men, at 9*l.* per fm., the lode is 3 ft. wide, and unproductive. The cross-cut driving north, at the 180, by four men, at 9*l.* per fm., is in from shaft 21 fms. The engine-shaft is completed to the 200 fm. level, and the sumpmen are driving a cross-cut south, at 10*l.* per fm., to intersect the lode at that depth.—Should our present prospects continue until next sampling, we calculate on raising about 550 tons of ore.

Stray Park Mine, June 14.—It is with much pleasure I have to inform you that I have at last succeeded in obtaining from Sir R. R. Vyvyan, on very satisfactory terms, the sett of his land contiguous to these mines, on the south, and known by the name of "Carn Camborne," which is considered to be a valuable adjunct to our previous setts. In the course of a few days I hope to be in possession of the deed of Camborne Vean, and then, with all unpleasant matters blown away, I trust we may look forward to a long series of years of uninterrupted peace and prosperity. Our next general meeting will be held on Friday, the 15th August, when a dividend of 10s. per share may be expected.—W. VAWDREY.

WHEAL APPLEDORE MINING COMPANY.

The first general meeting of shareholders was held at the mine, St. Ives, on the 13th inst. Mr. R. C. MANUEL in the chair.

The PURSER read the notice convening the meeting, when the accounts for March to May, inclusive, were laid before the meeting for examination; they were passed, and a call made for the ensuing two months' working. Rules for the future management of the company, together with many resolutions for the protection and guidance of the affairs of the mine, were agreed to. Mr. Browning, the present captain, gave a verbal report of the workings already carried out, and suggested the propriety of continuing operations on one of the western lodes, where he expects to cut a good lode of lead ore, while he hopes that ere long this mine will present equally as cheering prospects as seen in the neighbouring Wheal Trelawny, Trehane, and the Wheal Mary Ann Mines. The owner of the minerals assured the shareholders that he would render every assistance to further their object, and to complete the sett he granted an additional piece of ground to the south, about 150 acres—making altogether one of the finest setts in the county, it being nearly 1½ mile on the course of the lodes, of which there are seven north and south already discovered, with the advantage of driving an adit on the course of the lode, which will drain the mine at least 30 fms. The shareholders are in high spirits, and are determined to carry out the work with strict adherence to the Cost-Book System; the offices are appointed in London, and the affairs are to be under the superintendence of Mr. Manuel. The best thanks of the meeting having been presented to those who have taken an active part in getting the mine to work, and also to the chairman, for his able conduct, the meeting separated.

WHEAL MAY MINING COMPANY.

A general meeting of shareholders was held at the Rose and Crown Tavern, Old Broad-street, City, yesterday.

GEORGE BECK, Esq., in the chair.

Mr. RYDE asked if the lease was on the table, as it was usual to exhibit it.

The SECRETARY said it was deposited at the office, and could be procured, if desired.

The SECRETARY, *pro tem* (Mr. Peat), read the minutes of the former meeting, which were confirmed, and the following report of the finance committee:—

A special meeting being convened, your committee consider they are enabled to meet you under better auspices than was at first anticipated; but, in consequence of many discrepancies appearing in the accounts, auditors were appointed to examine the same, and report the result of their investigation, which is placed before you, as well as requesting your late secretary, Mr. C. S. Richardson, to resign, which he accordingly did, and was duly accepted.

Your committee find there is now due to merchants and others the sum of 82*l.* 5s. 10d., and there remains in the hands of the treasurer upwards of 2000 shares undisposed of, showing that funds can be at once raised by the disposal of the shares to liquidate the present liability, and provide for the payment of the future costs to be incurred on the mine. Your committee would, therefore, suggest that each shareholder should be requested to increase his interest, and solicit his friends to take shares, so that the number now in the hands of the treasurer be taken up, when ample funds will be raised for all purposes. Your committee would not recommend this mode of providing funds, unless they were perfectly satisfied that the prospects of the mine warrant it, having arrived at this conclusion, from the opinions of practical miners and others who have inspected the mine, who all agree that it is beyond a speculation, and well worthy the outlay recommended in former reports, feeling confident if the shareholders co-operate with them in the suggestions made, ample returns will be realised. You have to appoint a secretary, and your committee would beg to call your attention to Mr. Henry Peat, who was elected secretary *pro tem.*, and, no doubt, will adopt the views of the shareholders generally. Your committee have, therefore, to conclude, by requesting the shareholders to examine the accounts and affairs of the mine, when it will at once be perceived that your committee have done their utmost to protect the interest of the company.

A PROPRIETOR inquired of what the claims consisted?—The SECRETARY replied that, out of the 82*l.*, a part consisted of merchants' costs, and principally the items of the captain's charges.

A PROPRIETOR inquired what number of shares were in hand?—The SECRETARY replied about 2000, which were held for disposal, to put the mine at work, and were intended to be issued at par.

The CHAIRMAN said, instead of 750*l.* being paid, 1500 shares were taken for the lease.

Mr. RYDE said, that 710 shares ought to have been paid upon, so that 350*l.* should have been received, which, instead of making a liability of 82*l.*, would leave a surplus for the adventure.

Mr. WINTERBOTTOM said, there might be a mistake in the shares; but the account, he thought, was right after all; 422*l.* 9s. 9d. had been expended; and, deducting the 82*l.* now due from the mine, there had been expended 340*l.*, which was only for 680 shares.—The report was then adopted.

Mr. RYDE inquired to what depth the workings had been carried?—to which it was replied, 5 fms. from the adit level.

Mr. RYDE advised that samples of the ore should be sent to Mr. Percival Johnson, in order that a regular assay might be made as to the value of the mine.—After some other business had been transacted, the meeting separated.

WHEAL TRESCOLL MINING COMPANY.

At the two-monthly general meeting of adventurers, held on the 18th inst., the accounts for April and May were audited and passed. The reports read to the meeting were most encouraging The accounts showed a profit, and from the quantity of tin recently sold, and the extent of tin ground laid open, no further calls were deemed necessary. The deputation appointed at a previous meeting had visited the mine, and reported fully on the works and prospects. The meeting altogether was most satisfactory to the shareholders, and the greatest confidence was expressed by them in this now generally-admitted promising undertaking.

WHEAL GOLDEN CONSOLS MINING COMPANY.

At the bi-monthly meeting of adventurers, held at the offices, New Broad-street, on Tuesday, the 18th inst., the accounts of receipts and expenditure were produced, showing—Ores sold to Combmartin Smelting Company, 36 tons, at 14*l.* per ton, 504*l.*; and to Sims, Willyams, and Co, 36 tons, at 13*l.* 5s. per ton 477*l.* = 981*l.*—Cost for the months of April and May, 566*l.* 16s. 4d.: leaving balance in favour of the company for the two months, 414*l.* 3s. 8d.

[From the *Plymouth Journal.*]

WARLEGGAN CONSOLS.—The reports from this mine are increasingly encouraging.

WHEAL FRANCO.—In bringing up the lobby the great cross-course has been driven through it, is from 40 to 50 fms. wide, including the branches; it has well-defined walls, particularly on the eastern side, and were almost immediately obliged to use powder. There are about 160 fms. more to drive to reach the place at which the wheel is intended to be fixed, but it is impossible to say what time this may take until we can see whether or not the water is let down, so as to enable us to commence at several places at once. A 36-feet wheel, with 5 ft. 6 in. breast, will give sufficient water-power to prove the mine 200 fms. deep. In the 62 fm. level east the leader part of the lode is about 3 ft. wide, composed of mundic, peach, and yellow ore. In the 47 fm. level east the lode in the end is hard, composed of mundic and peach. In the winze under the 32 fm. level east the lode is from 3 to 4 ft. wide, composed of capel, peach, and ore, and, although not rich, is a kindly lode. In the 32 fm. level, east of Spry's shaft, driving towards Wheal Massey, (the part recently added to Wheal Franco sett), the lode is 2 feet wide, producing good stones of ore, and is a very kindly lode. The tribute pitches are turning out much as usual. The sampling last week was 110 tons.

PLYMOUTH WHEAL YEOLAND.—The north lode, in the 32 fathom level east, is 6 feet wide, tinny throughout; the backs are let at 10s. tribute, and the men are getting fair wages. The lode in the 20 fathom level east (over the 32) is from 5 to 6 ft. wide, tinny throughout, and is a very promising lode. There are altogether six pitches working—two at 10s., two at 12s., and two at 13s. 4d. in 1*l.*

THE UNITED MINES (Tavistock).—We understand that the arrangements are completed for working Anderton and Wheal Ash (Tavistock Consols) together, under the above title, by which means the Wheal Ash lodes will be cut at between 90 to 100 fathoms deep, by means of the Anderton shaft and level, thus saving a very large amount of money, and many years of time, and proving two of the largest and most promising lodes in this district at an inconsiderable cost, within, at the very farthest, four months from the present time. The steam-engine and machinery are fixed, and at work. From the Anderton lode 700*l.* of tin has been sold within a short time. The Rixhill lode, which has not been seen in this sett, and now making considerable profits in the adjoining sett, may be cut in eight months; and as there is a good shoot of tin in the back of the Anderton, 80 fms. west, from which returns may be immediately made, there can be no doubt that this is an excellent speculation, and that it will command the attention of the capitalist.

MINING STATISTICS.

[Our contemporary, the *Daily News*, has commenced publishing each morning a notice of the mining share market of the previous day, and, to familiarise their readers with the subject, intends to insert a series of "Mining Statistics," giving in a concise form some of the more interesting features of the mines. Though most of the particulars are known to our readers, we shall reprint the notices as they appear, in a collected form, being desirous that every matter of interest to the mining world should appear in our columns.]

SOUTH BASSET.—In 256 shares, 10*l.* 5s. paid up; present price 250*l.* per share; paying dividends of 10*l.* per share every two months, or 60*l.* per annum; conducted on the Cost-book System. Mine held on lease for 21 years, from the 10th January, 1832, at 1*l.* 15s. dues. Lady Bassett being the owner of the royalty. The dividends already paid to the shareholders since 1832 exceed 40,000*l.* The ground is very extensive, is in the richest district in Cornwall, and it is calculated the ores discovered are worth 70,000*l.*—[A new lease for 21 years, from the early part of this year, has just been obtained from Lady Bassett, on the same terms as the old one.]

WHEAL BULLER.—In 128 shares, 10*l.* paid up; present price 650*l.*; paying dividends at the rate of 20*l.* per share every two months, or 120*l.* per share per annum; conducted on the Cost-book System; held on lease for 21 years from 1849, of James Wentworth Buller, Esq.; dues 1-15th. The engine was put to work on the 11th December, 1848, and discoveries of ores were soon made. In less than twelve months 20*l.* per share were paid in dividends to the shareholders. The dividends this year have already been 42*l.* 10s. per share. Since the discovery of Wheal Maria no British mine has made the extraordinary progress of Wheal Buller. Some years ago it formed part of Old Buller and Beauchamp, worked by Mr. Taylor, and abandoned by him without exploring the sett now forming Wheal Buller.

SOUTH WHEAL FRANCES.—In 124 shares; 160*l.* paid, price 560*l.*; paying dividends of 10*l.* to 20*l.* per share every two months. To the end of 1849 the dividends of profits paid to the shareholders amounted to 23,436*l.*, or 189*l.* per share. This year the dividends have been 5270*l.*, or 42*l.* 10s. per share. The mine is very extensive, and the copper ores raised from it greatly exceed in value the average of Cornwall.

WEST WHEAL TOWAN SETT is near Porth Towan, on the north coast of Cornwall, and includes the same lodes formerly very largely productive in Great Wheal Towan and South Towan Mines. A 60 inch cylinder engine is now in course of erection for the drainage of that part of the mines formerly known as Middleworks, and where the shaft is sunk to a depth of 20 fathoms. Since the works were commenced a fine copper lode has been discovered in a cavern at the foot of Kerriack Point. The cavern is filled by the sea at high water, and can only be entered at the lowest tides, and approached by a difficult descent from the cliffs, which may account for its having been so long unnoticed, as the floor of the cavern was strewed with large masses of the lode and copper ore. A level is now being driven on this vein, which is 3½ ft. wide, and producing 1½ ton of copper ore per fm. Divided into 500 shares.

COMPANY OF COPPER MINERS IN ENGLAND.

We regret that the indefatigable labours of the Committee of Shareholders appointed in April, 1849, for the purpose of rescucitating and reconstructing this ancient company, have been hitherto fruitless. It must be in the recollection of our readers, that at the close of the year 1847, the property belonging to the corporation was mortgaged to the Bank of England, subsequent difficulties arose, and at the annual general meeting in 1849, it was mooted whether the company should be carried on or wound up. A committee was appointed then; with great care and trouble a bill was prepared by them to amend the charter granted in 1691, *tepm.* William and Mary. The object of this was to raise fresh capital, and to liquidate the liabilities of the company. The bill was brought in the House of Commons early in the present session, and after being read a second time was committed. The committee (who were the Marquis of Worcester, Viscount Anson, the Hon. John Manners Sutton, Messrs. Cornwall Leigh, and Bagge), after five days' investigation, on Friday se'nnight declared the preamble of the bill not proved. As, according to the rules of the House, no reason is assigned for this decision; the committee of shareholders are at a loss to know in what way the bill, prepared at so much trouble and expense, has failed. It is not known what steps will be taken; but, from good authority, we can affirm that the case of the company is not considered entirely hopeless, and that several parties, who have hitherto been inactive in the concern, are likely to lend their assistance to the Shareholders' Committee, in order to preserve the property intact to the proprietary.

SUNDERLAND DOCKS.—These docks were opened on Thursday. Mr. George Hudson, M.P., was present, and presided at the dinner in the evening. The *Sunderland Herald* states the length of that portion of the dock which has just been opened at 2000 ft., and the average breadth 440; the width at one point being 360, at another 440, and at another 520 feet, and covering in all 18½ acres. The entrance from the river is between the Tidal Gauge and the Low Quay, where a spacious tidal harbour has been formed. This communicates with the half-tide basin by two massive lock gates, one forty-five feet, and the other sixty feet wide. The lock sill is laid six feet below low water of spring tides, so that there will generally be twenty feet to twenty-one feet of water over it. The entrance to the dock itself is 60 ft. wide; the depth of water at the quays will be 20 feet, and in the middle 24 feet. The length of quays in the dock is 5248 feet, which will easily accommodate 40 vessels; while the dock itself will hold 220 more. The length of quays in the half-tide basin is 1026 feet, accommodating eight vessels, while 30 more can lie outside these. The dock will thus be capable of containing 260, and the half-tide basin 38 vessels; the depth of water, too, will suffice for ships of the largest tonnage. The estimated cost of the works yet to complete—viz, the sea outlet, the piers, and tidal basin, does not, we understand, exceed 60,000*l.*; and it is probable that the whole will be finished in about two years.

THE IRON TRADE—(*From a Correspondent*).—We have reason to fear that a further decline in prices must take place. The trade is represented as being in a very depressed state, notwithstanding the reduced make, the supply being greater than the demand.

VENTILATION OF MINES.—Several petitions have been presented during the week, praying for an efficient inspection of coal mines; one, on Wednesday, from a large body of colliers in Lancashire and Cheshire, could not be received, in consequence of the allegations and prayer not being written, but printed.

The last West India mail brings intelligence of considerable importance should it turn out true to the full extent—the discovery of a gold district near Angostura, a town of Columbia in the province of Carthagena, South America, on the Magdalena, at the influx of the Nares, 110 miles north by west of Bogote, and 300 miles south of Carthagena. The particular locality is described as being the Yurnary river, in the province of Tupuquen, where a gentleman named Monasterio had collected a large amount. A vessel had been put up at Trinidad by an enterprising firm, with the view of conveying passengers to the land of promise, but private accounts inculcate the necessity of caution, and while not doubting that great metallic treasure exists, it is plainly intimated that there is danger from the Indians, who are rather hostile in the country indicated. It is mentioned also that there was some doubt whether the Venezuela Government would allow adventurers of all nations to engage indiscriminately in the collection of the ore.

A new and very rich vein of ore has lately been discovered at Kirk Maughold Mines, Isle of Man, which promises to afford employment for additional hands.

There has been within the last few months so great an improvement in the Sambre and Meuse Railway, that at the half-yearly meeting, to be held in three weeks, the directors will be enabled to announce a very considerable surplus, available now or hereafter, as may be agreed, for the benefit of the shareholders, after paying all working expenses and interest on debentures. The increase in the traffic, though the worst half-year, is nearly 40 per cent. over the last and best half-year.

SOCIETY OF ARTS.—We understand that the council of the society have appointed a committee, of which Mr. J. H. Murchison is elected chairman, to take steps for forming an exhibition of articles of utility and design registered during the year 1850; and, if thought advisable, during 1849 also. It is intended that the exhibition shall take place in the society's room about the end of this year.—*Globe.*

"THE BOOK POST."—The establishment of the book post is a singular instance of the sluggishness of the powers that be in adopting useful suggestions. Mr. J. J. Lake, of the Ordnance Department, having experienced, whilst serving in Ireland, the great inconvenience that resulted from the impossibility of receiving books from London oftener than once a month by the booksellers' parcels, and that, too, in the second town in that country, represented to the Postmaster-General, in 1845, the great advantage it would be to allow books to be carried by the Post-office at a reduced rate. The reply to this was—The Postmaster-General "cannot recommend the Lords of the Treasury to authorise periodicals and literary works to pass through the post at a reduced rate of postage, as you suggest." The Marquis of Clanricarde, however, who succeeded to the administration of that department in the following year, appreciated the idea, and caused it to be adopted.

COMPANIES PROCEEDING UNDER THE WINDING-UP ACT.

ROYAL BANK OF AUSTRALIA.—On Tuesday the first meeting of the shareholders interested in the settlement of this company's affairs, was held before Master Richards, to settle the list of the contributories. An application was made on behalf of Messrs. Prescott, Grote, and Co., the bankers, to be allowed to prove a debt of between 2000*l.* and 3000*l.*, money received by the Royal Bank of Australia to their order in the colonies, and not paid by the bank to them, though the manager acknowledged its liability. Mr. H. Harris, solicitor, on behalf of the official manager, Mr. Wryghte, stated that from the books of the company this appeared to be the case, and the Master intimated that he would give judgment at a future meeting. Class 1 of contributories, being a list of 83 shareholders, who signed the deed, paid the deposit, and still held shares, was then proceeded with and settled, with one or two exceptions. It appeared from what transpired, that the bank appointed Mr. Benjamin Boyd, its chairman, to conduct its affairs in Sydney, and that, on his not duly accounting to the directors, he was superseded in 1847 by Mr. W. S. Boyd, who in his turn was superseded in 4849 by Mr. Browning, a clerk of Mr. Benjamin Boyd and of Mr. W. Mark Boyd, deputy chairman of the company. A sum of 86,000*l.* was raised by calls, and 310,000*l.* by deposit notes, the major part of the money being entrusted to Mr. Benjamin Boyd, the company's manager at Sydney, who is the accounting party for its disposal, the available property at which place is now estimated at only 60,000*l.*, while the claims, amongst which is one of 40,000*l.*, by the Union Bank of London, are estimated at 350,000*l.*

EASTERN AND NORTHERN COUNTIES RAILWAY.—On Monday Master Dowdeswell proceeded with the settlement of the list of shareholders brought in by Mr. Humphreys, official manager, for winding up the affairs of this concern, and the liabilities of which are estimated at between 2000*l.* and 3000*l.*

MADRID AND VALENCIA.—On Monday Master Blunt proceeded with the list of shareholders in this scheme liable to become contributories to pay off outstanding claims. Two lists were brought in by Mr. Quilter, the official manager: the first consisted of allottees of shares who were directors, members of the provisional committee and committee of management, 14 in number. The second list consisted of original allottees, not being directors or members of the provisional committee, or committee of mangement, in number 114. The Master fixed all the names on the list as liable on the production of evidence proving their acts and consent to act, signatures to cheques, applications for shares and letters of allotment. A contributory inquired what was intended to be done with the other directors of the company, Mr. Chadwick having retired?—The official-manager replied that they were going to get back the money of the shareholders for them, and settle the list, so as to be able to charge the directors in the way pointed out by the Act of Parliament.—The contributory: Are you not going to take proceedings against Mr. Chadwick?—Official manager: No.—Another contributory said it appeared to him that in settling the list they were putting the cart before the horse, there being ground for believing that there were no debts existing for which the shareholders would be liable. The Master observed that this remained to be seen, and that at any rate it was not a question for him to entertain in settling the list, which was the first thing to be done. The solicitor to the estate stated that there was one debt or liability alone of 5000*l.*, in the shape of a lien, claimed by Mr. Rose, the solicitor.

DIRECT LONDON AND MANCHESTER.—Yesterday, Master Senior proceeded with the settlement of list No. 3 of shareholders in this concern, in number about 1500, being parties who signed the subscribers' agreement for a certain number of shares, but who did not pay a deposit. The Master has settled and fixed all those on list No. 1, containing 1400 shareholders, who signed the subscribers agreement and paid the deposit; and likewise list No. 2, containing 1494 names of parties who paid the deposit, but did not sign the deed. A fourth list remains to be disposed of—1495 shareholders, who signed the subscribers' agreement without stating the number of shares for which they subscribed, and who paid no deposit. A bill in Chancery has just been filed by the official manager to the estate on behalf of the shareholders, to recover a sum of 40,000*l.* paid by the directors of this company on its amalgamation with a rival direct London and Manchester, called Rastricks, and which sum is alleged to have been paid over without consent of the shareholders in the former undertaking.

BEDFORDSHIRE, HERTS, AND ESSEX.—Yesterday, in commencing the settlement of this company's affairs, some 50 of the inhabitants of Dunstable were summoned before Master Sir George Rose, to show cause why, as provisional committeemen, they should not be held liable to contribute towards defraying the debts of the concern. Documents were put in in evidence by Mr. Norris, the official manager, signed by these gentlemen, showing their consent to act and to take shares. It was contended at considerable length, by parties representing the provisional committee, that the signatures to these documents were obtained by fraud and collusion. Agents of the company, it was stated, visited Dunstable, and canvassed the principal inhabitants, stating that the proposed railway was to bring sea coal to them at 1*l.* per ton, and representing to them that, if they signed the documents, which were "rolled up," and which were undertood to be petitions, expressive of opinions in favour of the line, there would be no responsibility. It now appeared that these documents were consents to act, and were brought into court by the agents of the company, who sought the benefit of them to reimburse themselves, under the Winding-up Act, after having successfully deceived the inhabitants of Dunstable, who, in their simplicity, allege they believed that they were agents for the formation of the line. His Honour, the Master, was of opinion that this was either misconception or hypothesis. Men of business would have unrolled the paper and read it, and as the signatures of these gentlemen appeared on the face of it, he could not release, but must hold them liable in equity, though an action at law, on the ground of alleged fraud, might lie.

RAILWAY TRAFFIC RETURNS.

Names of Railways.	*Length.* 1850	1849	Present actual cost.	Price p. share	Last Div.	*Traffic Returns.* 1850	1849
Aberdeen	72	16	1,000,547	9½ 9	—	1262	£518
Belfast and Ballymena	37½	37½	491,159	18½	—	542	490
Birkenhead, Lancashire, & Chesh.	15	15	960,653	18½	—	1171	975
Bolton, Blackburn, & West Yorksh.	14	14	968,112	5½	—	445	430
Bristol and Exeter	84½	75½	2,924,661	66	3½	4248	4177
Caledonian	160	141	5,149,320	8½ ½	—	6249	6063
Chester and Holyhead	94½	81	3,581,587	9½	4	3262	1749
Dublin and Belfast	22	—	——	10½	—	328	263
Dublin and Drogheda	53	35½	778,565	28	—	919	862
Dublin and Kingstown	7½	7½	349,736	—	8	902	1010
Dundee, Perth, & Aberdeen Junc.	47½	47½	179,775	4	3	586	496
East Anglian (Lynn to Ely)	67½	67	1,308,194	1½	—	780	1632
East Lancashire	75½	75½	3,192,759	7	1	3154	3141
Eastern Counties and Norfolk	322	322	13,139,156	7½	1½	16087	15620
Eastern Union	95	50½	1,782,7?2	3	—	2410	1326
Edinburgh and Glasgow	89½	68½	2,644,378	27½	3½	3539	3554
Edinburgh and Northern	70	70	2,024,082	4½	—	2280	2119
Glasgow, Paisley, and Ayr	102½	74	1,996,201	43½	1½	2740	2870
Glasgow, Paisley, & Greenock	23	23	866,074	10½ ½	2½	1168	1043
Gt. Northern & East Lincolnshire	143	110	5,406,157	10½ 11	—	3314	2030
Gt. Southern & Western, Ireland	188½	110½	3,890,228	30½	—	4127	3596
Great Western	230½	206½	13,189,565	59½ 9	4	20007	18601
Lancaster and Carlisle	90	90	1,476,808	52½	4	3274	2273
Lancashire and Yorkshire	224	196½	10,818,478	40	4	13571	12520
London and North Western	478½	428	25,286,876	109½ 8½	6	45321	44528
London and Blackwall	5½	4	1,363,529	4½	—	1079	1005
London, Brighton, & South Coast	171½	162½	7,103,102	83½ 3	2½	10514	10036
London and South-Western	242	194	7,490,688	60½	3½	12503	11964
Londonderry and Enniskillen	14½	14½	171,026	16	—	143	141
Manchester, Sheffield, & Lincolnsh.	160½	94½	2,078,135	14	—	5494	3515
Midland Company	492½	463½	14,042,340	37½ 6½	2½	20895	20794
Midland Great Western (Irish)	50	36½	362,978	21½ ½	—	1240	1055
Monklands	36	—	486,245	—	—	—	727
North British	135	110	2,800,747	7½ ½	3	2956	2679
Scottish Central	45½	45½	1,448,969	12½	5	1410	1323
Scottish Midland Junction	34½	32	871,877	7½	—	435	—
Shrewsbury and Chester	48	48	1,161,840	7½ ½	2½	1696	1504
Shropshire Union	30	—	—	2½ ½	—	496	—
South Devon	57½	57½	1,951,933	8	—	2160	1792
South-Eastern	234	165½	8,116,914	15 14½	3	12486	9177
Taff Vale	38	38	907,398	—	6	2436	2631
Ulster	36	36	675,000	45½	2½	857	709
West Cornwall	13	13	209,386	—	2½	331	273
Whitehaven Junction	12	12	171,962	9½	1	194	203
York, Newcastle, & Berwick	290½	269	5,251,999	15½ ½	2½	12893	11742
York and North Midland	260	260	4,875,682	17½ 16½	1	6994	7219

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning Eleven o'clock.

Bank Stock, 8 per Cent., 209	Belgian, 4½ per Cent., 88¼
3 per Cent. Reduced Ann., 96¼ ⅛ ¼	Dutch, 2½ per Cent., 57⅞
3 per Cent. Consols Ann., —	Brazilian, 5 per Cent., 90
3¼ per Cent. Ann., 98 7⅞ 8¼ 7⅞ 8¼ 7⅞	Chilian, 6 per Cent., 99½
Long Annuities, 8¼	Mexican 5 per Cent., ex Coup., 29⅞ 30
India Stock, 10½ per Cent., —	Russian, 5 per Cent., 109½
3 per Cent. Con, for 17th July 95⅞ 6 5⅞ 6	Spanish, 5 per Cent, 17⅞ ¾ ⅞
Excheq. Bills, 1000*l.*, 1½d. 70s 67 pm.	Ditto 3 per Cent., 38⅞ ¾

MINES.—Although the week did not commence very promising, we find, upon the whole, that a large amount of business has been transacted, and the active inquiry for shares in most of our leading mines, which still continues, gives a favourable impetus to the mining share market generally.

We have inquiries for South Basset, South Frances, Pendarves Consols, Wheal Seton, Lamberooe Wheal Maria, Comfort, Trethellan, East Pool, and several other leading mines

Wheal Mary Ann ore was sold on Wednesday last; the two parcels, amounting to 158 tons, realised 2231*l.* 4s. 6d. Although a decline has taken place in the price, still this is the largest sale yet effected.

At Stray Park, Comborne Vean, and Wheal Francis Mines two-monthly account, a dividend of 15s. per share was declared, leaving a balance in hand of 573*l.* 3s. 8d. The agent's report is very satisfactory, and, from present appearances, they calculate on raising for the next account 550 tons of copper ore, and the next dividend, in all probability, will be 10s. per share. A vote of thanks was passed to the manager for his extra exertions, and the economical manner in which he had managed the affairs of the mines An additional piece of ground had been obtained on the south, known as Carn Camborne.

At the Budnick Consols meeting, held at the mine, on Monday last, the accounts for January, February, March, and April showed—Balance on Dec. 31, 208*l.* 5s. 3d.; ores sold (less dues), 2077*l.* 18s. 6d.; carriage of tin, 35*l.* 11s. 11d. = 2321*l.* 15s. 8d.—Cost and merchant's bills, 2271*l.* 1s. 11d.—leaving balance in favour of adventurers, 50*l.* 13s. 9d.

At Wheal Tremayne account for March and April, the statement of accounts showed balance in favour of mine of 976*l.* 7s. 11d.; and a dividend of 10s. per share was declared, carrying to credit of next account, 464*l.* 7s. 11d. The agent's report is very favourable, and similar results may be anticipated at the next account.

At Condurrow bi-monthly meeting, a balance of 47*l.* 4s. 6d. was found in favour of the company. A deficiency of returns had taken place, in consequence of driving some unproductive ground, which, being completed, and levels laid open, which can be worked with greater facility, the returns in future will, in all probability, equal former ones.

At the two-monthly meeting of Wheal Golden Consols, the statement of accounts showed a balance of 414*l.* 3s. 8d., being profits for the two months. Two parcels of silver-lead ores were sold, amounting to 72 tons, realising 981*l.* The mine is reported as very encouraging. Tenders are now being made for 36 tons.

At the East Pool meeting, held at the mine, on Tuesday last, the accounts were presented, showing—Balance from last account, 893*l.* 12s. 7d.; costs and merchants' dues, 1060*l.* 15s. 3d. = 1954*l.* 7s. 10d.—By ores sold (less dues), 782*l.* 5s. 9d.; two months' water charge, 120*l.* = 902*l.* 5s. 9d.—showing balance against adventurers, 1052*l.* 2s. 1d.—A call of 5*l.* per share was made.

At West Tolgus account, a call of 10s. per share was made, and a resolution adopted for carrying on the operations with vigour, by sinking a new perpendicular shaft, and other requisites.

It will be perceived that the Crane and Bejawsa mines have been spiritedly set to work, and much confidence is reposed in the undertaking, from the known respectability of the parties concerned.

The East Birch Tor meeting, after a lengthened debate, was adjourned to Wednesday, the 26th inst.

At the Wheal Sophia meeting, the accounts were presented, showing (reckoning all outstanding calls paid) balance in favour of company, 50*l.* 8s.—A call of 5s. per share was made.—The engine has been put to work, and answers satisfactorily. A salutary lesson is paid to defaulting shareholders by the committee, which we forbear—that of publishing the names of all whose shares are in arrear of calls.

At the Wheal May meeting, yesterday, the resignation of Mr. Richardson was accepted—another secretary (Mr. H. Peat) having been appointed in his place. The accounts showed that 82*l.* odd was due to merchants and others, and that 2000 shares remained unsold—the estimated value of which, at par, would leave a surplus towards putting the mine to work. The lease had been paid for by 1500 shares, instead of 750*l.* in money.

At the Wheal Trescoll meeting, the accounts for April and May, showing a profit on the sales of tin, were passed. A deputation had been appointed to visit the mines, who reported very favourably; and, from the extent of tin ground open, it was expected no further call would be required.

Several improvements have taken place during the past week, among which we may notice Wheal Seton in the 100 fm. level west; and West Wheal Jewel in the Tolcarne tin lode, now worth full 25*l.* per fm. At Lewis a new lode has been intersected, which, although small, is producing good work. At Caradon Vale, in driving the adit level, they have intersected a course of lead, about 6 in. wide, supposed to be the Trelawny lode. Tincroft and South Tolgus have improved since last report. At Holmbush the flap-jack lode, in the 100 fm. level, east of the great cross-course, is 2 ft. wide, producing 3 tons of copper ore per fathom. Bedford United has improved in the 103 fm. level east. At Spearne Consols they have cut a splendid course of tin in the 116 fm. level, on which they have driven 3 fms., and the lode in the end is now estimated worth 120*l.* per fm.; the bottom level end is rich for tin, and the shaft now sinking under the 128 is worth upwards of 20*l.* per fm. At Heignston Down Consols the lode has much improved, and further improved, and further improvements are confidently expected. At the Phœnix Mines, near the Caradon hill, they have recently had some valuable discoveries; the lode in the shaft is estimated to be worth 80*l.* per fm., and it is stated that upwards of 10,000*l.* worth of ore has been laid open within the past fortnight. We congratulate the enterprising proprietors, who are now likely to be amply rewarded for their forbearance of several years, and an expenditure of 40,000*l.*

South Plain Wood and Moditonham shares have been done at a great premium; but we are not advised of any important discovery having been made.

In Roche Rock and Wheal Harriet Mines, recently resumed, under favourable auspices, we learn that several shares have changed hands at an advanced premium. In the latter mine a discovery has been made, valued at 25*l.* per fm.

In the Welsh Mines, we learn that the most satisfactory progress is making; and probably few are working their way so rapidly towards becoming a good, productive, and lasting mine as Bryntail. The mine being held by a few gentlemen, the operations have, consequently, been carried on without public attention being particularly drawn to it. Since the commencement in October last, three parcels of lead ore, realising about 430*l.*, have been sold; and preparations are being made for regular monthly returns, which the mine is capable of doing, and all necessary machines erected.

Shares in the following mines have changed hands since our last:—Wheal Seton, South Francis, South Basset, East Wheal Rose, Treviskey and Barrier South Tolgus, Pendarves, Gustavus, Penzance Consols, Stray Park, Tremayne, Condurrow, East Buller, Tincroft, Devon and Courteney, Tavy Consols, Lelant Consols, Daren, Bedford United, Treleigh Consols, Herodsfoot, North Buller, Mary Ann, Trelawny, Wheal Harriet, Bryn-arian, Roche Rock, Moditonham, Wheal Franco, Mary Tavy and Peter Tavey, South Carn Brea, and South Plain Wood.

In Foreign Mines, business has been done in the following:—St. John del Rey, United Mexican, Australian, Linares, National Brazilian, Cobre, and Santiago. The inquiries for Linares and Cobre especially have been well kept up during the week.

The usual report has been received from the Linares Mines, confirming former advices. The tribute department is looking remarkably well, and the tutwork operations progressing satisfactorily: 70 tons of silver-lead ores have been sold to Messrs. Pontifex and Wood, at 11*l.* 3s. 6d. per ton, which is the first sale, and regular sales may now be expected: 1377 arrobas were already in store for the next shipment.

The United Mexican advices will be read as satisfactory; although no particular change, the chance of cutting a good vein was hourly expected. A remittance of 3000*l.*, in a bill of exchange, was received.

The despatches from the Alten Mines will be read with interest—the estimated produce for May is given as 164 tons of ore, containing about 10 tons of fine copper; and, though no material change has taken place, the general appearance of some of the lodes is very satisfactory.

A special general meeting of the Asturian Company is convened for Monday next, to consider a proposition of the Duke of Rianzares, who has offered to advance the company 20,000*l.*, to pay off the debts, and to subscribe half the amount required by the new company, for the sum spent by the present shareholders, he undertaking to work the mines for their joint benefit.

The adjourned meeting of the Guadalcanal Mining Association was held on the 19th inst., when Capt. Rule attended, and confirmed his report, furnished at the meeting held on the 12th inst. After a long and desultory conversation, it was resolved that the present company should be dissolved, and a committee of six gentlemen should be formed, for the purpose of bringing forward some proposition for the re-construction of the association.

COPPER ORES

At SWANSEA, for sale June 27.—Berehaven 125, ditto 124, ditto 115, ditto 103, ditto 84, ditto 83.—Cuba 100, ditto 95, ditto 93, ditto 78, ditto 44, ditto 40.—Knockmahon 98, ditto 90, ditto 62, ditto 60, ditto 48.—Kapunda 25, ditto 17, ditto 16.—Forest Slag 52.—Burra Burra 48.—Australian 38.—London Ore 9.—Ballymurtagh 44.—French ore 18.—Vine Slag 12.—South Australian 6, ditto 5.—Gloucester Slag 2.—Santiago 33.—Total, 1767.

PRICES OF MINING SHARES.

BRITISH MINES.

Shares.	Company.	Paid.	Price
1000	Abergwessin	9	—
1024	Alfred Consols	8¾	27½ 30
1248	Allt-y-Crib	5	5
1024	Arundell	2¼	—
1024	AshburtonUnited Mines	9¾	—
1624	Balleswidden	9	14
128	Balnoon Consols	42½	20
905	Barristown	5½	3
3650	Bawden	¼	½ ¾
6000	Bealbury	1	1
4000	Bedford	2½	4½ ¾
1280	Birch Tor & Vitifer	10½	6 6½
5000	Black Craig & Craigton	—	5
8000	Blaenavon	50	12½
5000	Blisland Consols	1	—
1024	Bodmin Consols	3	3
5000	Bodmin Moor Consols	1	3
60	Bosorn	4½	10 12½
100	Botallack	182	110
120	Brewer	5	2½
10000	British Iron, New, regis.	12	8
—	Ditto ditto, scrip	10	10
2400	Bryn-Arian	2	1½ 2
107	Budnick Consols	52½	10 11½
260	Butterdon	1	2 3
1000	Callington	26	4¼ 4½
1000	Camborne Consols	7	5½
20000	Cameron's Steam Coal	7	—
256	Caradon Mines	22½	10
256	Caradon United	24	5 8
1536	Caradon Vale	¾	1 1¼
1000	Carbona	5	12 15
1000	Carn Brea	15	125 140
1000	Carthew Consols	1¼	7
113	Charlestown	220	—
500	Comblawn	5¾	4½
128	Comfort	45	55
256	Condurrow	20	80
2560	Cook's Kitchen	14	5¾ 6
1000	Coombe Valley Quarry	5	5 5½
1000	Copper Bottom	7½	—
900	Court Grange	9	10
212	Craddock Moor	23½	5
256	Crane and Bejawsa	2	10
128	Creeg Braws	120	30
500	Cubert Mine	12½	—
1000	Cwm Erfin	4	3½ 4
1000	Daren	2	7 7½
7100	Derwent	10	3
502	Devon&CourtenayCon.	11½	3 3½
1024	Devon Great Consols	1	235 40 42½
1000	Dhurode	2	5
182	Dolcoath	30	20
2560	Drake Walls	6¼	3¾ 4¼
10000	Durham County Coal	45	9
3000	Dyfngwm	10	5
2500	East Birch Tor	3	3
1024	East Buller	2	4¾ 5
2048	East Crowndale	7¼	1¼
256	East Godolphin	10½	13
4000	East Gunnis Lake Junc.	¼	¾ 1
128	East Pool	15	80
9000	East Tamar Consols	1¼	1¾ 1¼
256	East Tolgus	1¾	7
128	East Tywarnhayle	1	3
94	East Wheal Crofty	125	95
128	East Wheal Rose	50	510
256	East Wheal Seton	2½	2¾
—	East of Scotland Iron Co.	5	1¼
1280	Esgair Llee	2	4
248	Exmoor Wh. Eliza	11	8 10
494	Fowey Consols	40	30
1024	Freidd Llwydd Mines	1¼	3½
256	Garras	41	23
4000	Gen. Mining Co. for Irel.	1¾	4
2500	Georgia Consols (Tin)	1	3
256	Gonamena	44½	16
128	Goonvrea	4	2
256	Grambler & St. Aubyn	80	17½
96	Great Consols	1000	250
512	Great Wheal Baddern	—	50
512	Gt. Wh. Rough Tor Con.	24½	20
6000	Growa Slate Company	5	5
1026	Gustavus Mines	3	3½
1024	Hawkmoor	12½	10
6000	Heignston Down Con.	2½	3 3½
1500	Hennock Silver-Lead	21s	3½
4500	Hennock Iron & Tin	21s	21s
512	Herodsfoot	16	15 15½ 16
10000	Hibernian	12½	1¾
1000	Holmbush	23	10
1900	Keswick	10	2 3
1024	Kingsett and Bedford	3½	4½
787	Kirkcudbrightshire	8½	5 5½
2048	Lamberooe Wh. Maria	10	6 7
252	Lanarth Consols	—	7 8
256	Lelant Consols	47	18½ 20
160	Levant	—	180
1000	Lewis	17	9½ 10
1000	Llwynmalees	9½	10
3600	Llynvi Iron	50	50
6000	Marke Valley	10	¾ 1
5000	Mendip Hills	3¾	2
128	Metha	34	—
20000	Mining Co. of Ireland	7	4½
1024	Moditonham & Marrabro'	1½	—
1024	New East Crowndale	2	2
1024	North Buller	1½	3¾ 4
100	North Pool	45	450 475
140	North Roskear	5½	160
262	North Wh. Leisure	1½	2
512	North Wheal Vor	—	2½
128	Par Consols	55¾	650
1026	Pendarves Consols	2	7½ 8
1000	Pendarves & St. Aubyn.	4	5¾ 6
4934	Pennant & Craigwen	3	3½ 4
1000	Penybank and Erglodd	4	5
1024	Penzance Consols	22s 3d	3½ 3¾ 4
5000	Peter Tavy & Mary Tavy	½	¾ 1
512	Plymouth Wh. Yeoland	6½	6
112	Providence Mines	—	150
2500	Rhoswiddol&Bacheiddon	10	10
10000	Rhymney Iron	50	12
10000	Ditto New	7	3
5000	Roche Rock Tin	1	1¾
2500	Rocks Mine	5	6 7
2048	Runnaford Coombe Tin	2½	5
9000	South Tamar	1	2¾ 3

BRITISH MINES—*continued.*

Shares.	Company.	Paid.	Price.
128	South Caradon	5	270
1100	South Dolcoath	6	½ 1
256	Sth. Friendsh. Wh. Ann	30	28 30
256	South Molton	7	12 13
1024	South Plain Wood	1	15 16
300	South Speed	10	20
256	South Tolgus	16	135 140
256	South Trelawny	28½	5 8
2000	South Wales Mining Co.	1	1
256	South Wheal Basset	10½	260 70 75
124	South Wh. Frances	160	550
256	South Wh. Josiah	2	3½ 4
10000	Southern&Western, Irish	2½	4
280	Spearne Moor	30	40
128	Spearne Consols	10	60
256	St. Aubyn and Grylls	2½	7 8
94	St. Ives Consols	—	80
128	St. Michael Penkivel	5	10½
999	St. Minver Consols	1	6
1000	Stray Park	43	22 23
9600	Tamar Consols	3	4½
10240	Tavistock Consols	¼	¼ ½
687	Tavy Consols	8	3½
6000	Tincroft	7	11 11½
240	Tolcarne	8	14 15½
5000	Tregear Consols	1	2 2½
256	Tregurden	3¼	7 8
256	Trehane	1½	25 30
5000	Treleigh Consols	6	3 3½
200	Trelyon Consols	—	2½
2000	Trenance	3	
1500	Trenault Lime Quarries	2	3
96	Tresavean	10	100
120	Trethellan	5	26 27
120	Treviskey and Barrier	130	240 5
512	Trethevy Copper	2½	3½
512	Treville (Lewanick)	¼	7¾
1000	Tyllwyd	2	2½
200	United Mines	50	160
256	Wellington Mines	25	30
128	West Buller	10	650
256	West Caradon	20	95
512	West Fowey Consols	40	12
1024	West Par Consols	5	—
2500	West Polgooth	5	7s
	Ditto Notes	3	4½
512	West Providence	9	20 21
200	West Seton	45	180
120	West Trethellan	5	20
512	West Wheal Frances	1¾	9
256	West Wh. Friendship	9	8
3845	West Wheal Jewel	12	2½ 3
940	West Tolgus&Treloweth	12½	5¾ 6
500	West Wheal Towan	2½	11 12
1024	West Wheal Treasury	7	10 11 12½
1024	West Wheal Virgin	¼	¼
1024	Whiddon Mines	4¾	—
5200	Wicklow Copper	5	14
5000	Wicklow Copper and Sulphur Mines	3	3¼ 3½
107	Wheal Adams	130	150
1000	Wheal Agar	—	6
256	Wheal Albert	10	28 29
128	Wheal Ann	—	50½
512	Wheal Anna Maria	7	4
120	Wheal Bal	10	22
256	Wheal Benny	19	5
1024	Wheal Bray	11¼	—
242½	Wheal Calstock	9	10
256	Wheal Carpenter	—	7¼
268	Wheal Courtenay	20	23
182	Wheal Elizabeth	9	20
256	Wheal Fortescue	15	—
100	Wheal Friendly	70	66½
764	Wheal Franco	27	10 16
4000	Wheal Golden	2	5 6
1000	Wheal Grose	3s	5¼
100	Wheal Henry	—	40
256	Wheal Kingston	¼	1½
6000	Wheal Langford	¼	¾ 1
—	Wheal Langmaid	—	¾ 1
1024	Wheal Lawrence	3¼	3½
112	Wheal Margaret	79	180
512	Wheal Mary Ann	5	42 43
360	Wheal Oak	25½	5
3000	Wheal Penhale	1½	6
210	Wheal Prospect	4	7
1024	Wheal Providence	1	2½ 3
120	Wheal Reeth	41	100 105
198	Wheal Seton	107	250 270
1056	Wheal Sarah	5	6
512	Wheal Sophia	6¾	7
128	Wheal Squire (St. Erth)	—	5
128	Wheal St. Ann	30	35
1100	Wheal Trescoll	6¾	10
260	Wheal Trelawny	7¾	99
256	Wh. Tremaine (St. Ervan)	9½	2¼
1024	Wheal Tremayne	9¾	11 12
267	Wheal Tryphena	40	62½
512	Wheal Venton	2½	3½ 4
1000	Wheal Vincent	5½	7
128	Wheal Vlow (Perranz.)	1½	1¼
184	Wheal Vyvyan	—	60

FOREIGN MINES.

Shares.	Company.	Paid.	Price.
5000	Alten Mining Company	14½	2½ 2¾
15000	Asturian Mining Co.	15	1½ 2
20000	Australian	4	3¼ 3¾
6000	Barossa Range	1¾	1½ 2
10000	Brazilian Imperial	23	6
12000	Cobre Copper Co.	40	34 35
10000	Copiapo Mining Co	14	3½ 4
20000	General Mining Ass'n.	20	13 13½
4000	Guadalcanal	5	1
2000	Ditto Preferential	2½	2
5000	Kinzigthal Mining Ass.	2	¾
5000	Linares	3	2¾ 3
500	Ditto New	3	3 3½
5051	Mexican Company	59½	—
20000	Mexican & South Amer.	8	1 1¼
5000	National Brazilian	30	3 3¾
104000	N. Brit. Australasian	1	9s 10s
7000	Royal Santiago	10	8½ 9½
11000	St. John del Rey	15	13½ 14
43174	United Mexican ... Av.	28½	5 5½
10,000	Worthing (S. A.)	2	2 2½

*** We should feel obliged by agents, or others, furnishing us with corrections—our object being to present as correct a list of prices as can be obtained.

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Bate's West Hartley 13—Chester Main 12 9—Davison's West Hartley 14—East Adair's Main 11—Holywell 14—North Percy Hartley 13—Ord's Redheugh 13—Ravensworth West Hartley 14—Tanfield Moor 12 6—Townley 13—Walker's Primrose 11 6—West Hartley 14—West Wylam 13—Wylam 13 3—Wall's-End Brown's Gas 11—Gibson 12 6—Hedley 13 3—Northumberland 13 3—Riddel 13 3—Walker 13—Eden Main 14 3—Bell 14 3—Belmont 14 3—Braddyll 15 6—Creswell 14—Hetton 16—Haswell 16 3—Lambton 15 6—Richmund 13 6—Russel's Hetton 15 6—Scarborough 14—Stewart's 16—Whitwell 13 6—Caradoc 14 and 14 3—South Kelloe 14—West Kelloe 13 6—Whitworth 12—Adelaide Tees 15—Seymour Tees 13 3—Tees 16—Cowpen Hartley 14—Hartley 12 6 and 12 9—Nixon's Merthyr and Cardiff 20—Sydney's Hartley 14.—Ships at market, 223; sold, 111.

WEDNESDAY.—Bate's West Hartley 13—Davison's West Hartley 13 6—East Adair's Main 11—Holywell 14—North Percy Hartley 13—Ravensworth West Hartley 13 3—Tanfield Moor 12 6—Tanfield Moor Bute's 12—Townley 13—Walker Primrose 11 6—West Wylam 13—Wylam 13 3—Windsor Pontop 12—Hartley 12 9—Nixon's Merthyr and Cardiff 20—Wall's-End Acorn Close 13 6—Brown's Gas 11—Gosforth 13 3—Walker 13—Braddyll 15 6—Hetton 16—Haswell 16 3—Kepier Grange 15—Lambton 15 6—Scarborough 14—Bentley 13 6—Caradoc 14—Howden 13 6—Heugh Hall 13 9—South Hartlepool 14 6—Whitworth 12—Cowndon Tees 13 3—Tees 16—Russel's Hetton 15 6.—Ships at market, 130; sold, 55.

FRIDAY.—Bate's West Hartley 13—Begbies Hartley 12 9—Cresswell Main 12 3—Davison's West Hartley 13 6—East Adair's Main 11—Holywell 14—North Percy Hartley 13—Tanfield Moor 12 6—Tanfield Moor Bute's 12—Townley 13—Walker Primrose 11 6—West Wylam 13—Windsor's Pontop 12—Wall's-End Acorn Close 13 6—Bewicke and Co. 13 3—Brown's Gas 11—Gosforth 13 3—Harton 13 3—Riddell 12—Walker 13—Braddyll 15 6—Hetton 16—Kepier Grange 15—Russell's Hetton 15 6—Scarborough 14—Bentley 13 6—Caradoc 14—Heugh Hall 14—South Hartlepool 14 3—South Kelloe 14—Whitworth 12—Adelaide Tees 15—Hartley 12 6 and 12 9—Nixon's Merthyr and Cardiff 20.—Ships at market, 83; sold, 59.

MINING APPOINTMENTS DURING JUNE.

22. Pay day at Wheal Seton, Treviskey, Fowey Consols, Agar, Great Consols, United, Comfort, and West Buller.
24. Par Consols sampling.
26. Carn Brea and other mines sampling.
27. Ticketing at Truro—United, South Caradon, and other mines.
28. Pay day at North Pool.—Tincroft and East Crofty setting.
29. Pay day at Tresavean, Trethellan, Grambler, North Roskear, South Frances, Wh. Mary, Condurrow, West Seton, Tywarnhayle, and Levant tribute pay.

LATEST CURRENT PRICES OF METALS.

LONDON, JUNE 21, 1850.

ENGLISH IRON. *a*	*per ton.*
Bar, bolt, & square, London	£8 0–5 7 6
Nail rods	6 5 0–6 10
Hoops	7 0 0–7 10
Sheets (singles)	7 10 0–8 5
Bars, at Cardiff & Newport	4 10 0–4 15
Refined metal, Wales*	3 5–3 10
Do. anthracite*	3 10 0
Pigs in Wales	3 0–3 15
Do. do. forge	2 10–3 0
Do., No. 1, Clyde ... *net cash*	2 4 6–2 6 0
Blewitt's Patent Refined Iron for bars, rails, &c., free on board at Newport*	3 10 0
Do., do., for tin-plates, boiler plates, &c., ditto	4 10 0
Stirling's Patent Toughened Pigs in Glasgow	2 16 0
Stirling's Patent Toughened Pigs in Wales	3 5–3 10
Staffordshire bars, at the works	5 5–6 0
Rails	4 15–5 5
Chairs	—
FOREIGN IRON. *b*	
Swedish	11 15–12 5
CCND	—
PSI	—
Gourieff	—
Archangel	—
FOREIGN STEEL. *c*	
Swedish keg	13 15–14 10
Ditto faggot	15 0
ENGLISH COPPER. *d*	
Sheets, sheathing, & bolts, *p. lb.*	0 0 9½
Tough cake ... *per ton*	84 0 0

Tile	£83 0 0
Old copper *e* ... *per lb.*	8½d 8¾d
Yellow Metal Sheathing	8d
FOREIGN COPPER. *f*	
Chili	—
ENGLISH LEAD. *g*	
Pig ... *per ton*	18 0–18 5
Sheet	19 0
Pipe	19 0
Red lead	19 0 0
White ditto	25 0 0
Patent shot	20 10 0
FOREIGN LEAD. *h*	
Spanish, in bond	17 5 0
ENGLISH TIN. *i*	
Block ... *per cwt.*	3 14 0
Bar	3 15 0
Refined	4 0 0
FOREIGN TIN *k*	
Banca, H. C.	3 12–3 13
Ditto, for Export only	3 12–3 13
Straits	3 10–3 11
TIN-PLATES. *l*	
IC Coke ... *per box*	1 6 6–1 7 6
IC Charcoal	1 11–1 13
IX ditto	1 17 0
SPELTER. *m*	
Plates, warehoused ... *per ton*	14 15–15 0
Ditto, to arrive	—
ZINC. *n*	
English sheet ... *per ton*	21 0 0
QUICKSILVER *o* ... *per lb.*	4s.

Terms.—*a*, 6 months, or 2½ per cent. dis.; *b*, ditto; *c*, ditto; *d*, 6 months, or 3 per ct. dis; *e*, 6 months, or 2½ per cent. dis.; *f*, ditto; *g*, ditto; *h*, ditto; *i*, ditto; *k*, net cash; *l*, 6 months, or 3 p. ct. dis.; *m*, net cash; *n*, 3 months, or 1½ p. c. dis.; *o*, ditto, 1½ dis.
* Cold-blast, free on board in Wales.

GLASGOW, JUNE 20.—The strike in this district still continues, and the miners appear to be as firm in their demands as they were six weeks' ago. The stock of pig-iron in stores and in the hands of makers is, as nearly as can be ascertained, 210,000 tons, which is on the decrease, in consequence of the reduction in the make. The shipments last month were—

Broomielaw	*Tons* 10,196
Port-Dundas, Kirkintilloch, Port-Glasgow, and Greenock	9,091
Ardrossan and Irvine	7,935
Ayr	1,990
Troon	2,112
Charleston, Bo'ness, and Clackmannan	4,853
Leith	500
Total tons	36,677

For the last week the market has been quiet; to-day the price of mixed Nos., free on board here, is 45s. 6d. to 46s., cash. Buyers at 45s. 3d., cash.

LIVERPOOL, JUNE 19.—There has been a good demand this week for manufactured iron, and prices are rather stiffer. The colliers' strike in Scotland still continues, and the price of pigs is still maintained at 45s. to 45s. 6d. per ton, free on board at Glasgow. The demand is, however, confined to the supply of pressing wants, an impression prevailing that the price will decline so soon as the men return to work. The shipments continue light, 16,728 tons in May, 1850, against 23,891 tons in May, 1849. Tin-plates in good demand, at improved prices.

LEAD ORES.

Mine.	*Tons.*	*Price.*	*Purchasers.*
Sold at Bagillt, June 19.			
Cairnsmore	40	£9 3 0	Newton and Co.
Machynlleth	40	11 1 0	J. P. Eyton.
Sold at Aberystwith, June 17.			
Goginan	40	£15 10 0	Walker, Parker, & Co.
ditto	55	15 15 0	Panther Smelting Co.
Frongoch	80	10 8 6	Tamar Smelting Co.
Cwmystwith	70	10 5 0	Ditto.
Total tons	245 (21 cwts.)		
Sold at the Mine.			
East Wheal Rose	25	£14 17 6	Tamar Company.
ditto	5	7 15 0	Sims & Co.
Cargill	23	14 10 6	ditto
ditto	5	7 17 6	Tamar Company.
North Wheal Rose	7	14 8 0	Sims & Co.
Sold in London.			
Bryn-Arian	20	£10 16 0	Walker, Parker, & Co.
Linares Mines	70	11 3 6	Pontifex and Wood.
Sold at Liskeard, June 19.			
Wheal Mary Ann	93	£18 11 6	T. Somers.
ditto	65	7 15 0	Combmartin Company.

WHEAL GOLDEN CONSOLS MINES.

OFFERS FOR 36 TONS ORE.

Sims, Willyams, Nevill, and Co. (buyers)	£13 5 0
Combmartin Smelting Company	13 3 6
J. T. Treffry's executor	12 12 0
Walker, Parker, and Co.	12 5 0

BLACK TIN.

Mine.	*Tons.*	*Price.*	*Purchaser.*
Tincroft	35	£39 0 0	Daubuz, Calenick Co., Williams, & Bissoe.
Polberou	22½	40 7 6	Daubuz, Calenick, Williams, Enthoven, and Bissoe Co.
ditto	1¼	46 0 0	Daubuz and Williams.
ditto	½	34 12 6	Calenick Smelting Co.

COPPER ORES

Sampled June 5, and Sold at Andrew's Hotel, Redruth, June 20.

Mines.	*Tons.*	*Price.*	*Mines.*	*Tons.*	*Price.*
Devon Gt. Cons. Wh. Josiah	110	£6 2 6	Marke Valley	88	£2 19 0
ditto	105	6 7 6	ditto	84	3 0 6
ditto	104	6 5 6	ditto	80	2 17 6
ditto	91	6 7 6	ditto	18	2 7 6
ditto	90	5 4 6	Fowey Consols	96	7 10 0
ditto	56	6 10 6	ditto	90	6 10 0
Wh. Fanny	107	7 6 6	ditto	57	4 9 6
ditto	101	6 13 0	Wh. Friendship	101	6 12 0
ditto	96	4 10 0	ditto	81	5 11 0
ditto	94	4 2 0	ditto	50	5 7 6
ditto	93	5 8 6	Holmbush	128	5 1 6
ditto	77	5 1 6	Bedford United	118	6 12 6
Wh. Maria	78	6 2 6	Phœnix Mines	58	12 10 6
ditto	74	5 10 0	ditto	45	12 10 6
Wh. Anna Maria	76	4 12 0	South Wh. Fortune	33	9 3 6
West Caradon	91	7 3 6	ditto	30	4 12 0
ditto	82	6 14 6	West Wh. Jewel	33	4 10 6
ditto	68	12 4 6	ditto	24	1 6 6
ditto	54	4 5 6	Wh. Busy	30	3 4 6
ditto	53	11 7 6	ditto	12	3 1 0
			Wh. Pink	37	4 1 0

TOTAL PRODUCE.

Devon Gt. Cons., Wh. Josiah, Wh. Maria, Wh. Fanny, Wh. Anna Maria	1352	£7813 19 6	Wh. Friendship	232	£1384 18 0
			Holmbush	128	649 12 0
			Bedford United	118	781 15 0
			Phœnix Mines	103	1290 1 6
			South Wh. Fortune	63	440 15 6
West Caradon	348	2869 8 0	West Wheal Jewel	57	181 2 6
Marke Valley	270	786 9 0	Wh. Busy	42	133 7 0
Fowey Consols	243	1560 1 6	Wh. Pink	37	149 17 0

Average Standard .... £95 8 0 | Average Produce 9¼

Average Price per ton £6 0 6

Quantity of Ore .... 2993 tons | Quantity of Fine Copper, 275 tons 8 cwts.

Amount of Money £18,041 6 6

LAST SALE.—Average Standard .... £99 11 0.—Average Produce 8

Standard of corresponding sale last month, 98*l.* 3s.—Produce, 9¼.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	297	£1962 13 3
Vivian and Sons	762	4437 15 9
Freeman and Co.	305	1589 4 9
Grenfell and Sons	52	261 7 6
Sims, Willyams, and Co.	540	2644 16 6
Williams, Foster, and Co	772	5924 9 3
Schneider and Co.	265	1220 19 6
Total tons	2993	£18,041 6 6

Copper ores for sale on Thursday next, at Lenderyou's Hotel, Truro.—Mines and Parcels.—United Mines 835—Par Consols 363—Tresavean 306—Wheal Comfort 233—South Caradon 226—Treleigh Consols 73—West Trethellan 36—Gonamena 30—Wheal Banns 20.—Total quantity of ore to be sold, 2122 tons.

Copper ores for sale on Thursday week, at Tyack's Hotel, Camborne.—Mines and Parcels.—North Roskear 701—North Pool 612—Consolidated Mines 553—Tincroft 551—Wheal Seton 419—Fowey Consols 310—Wheal Basset 281—South Wheal Frances 233—Todd's Regulus 5.—Total quantity of ore to be sold, 3665 tons.

NOTICES TO CORRESPONDENTS.

*** We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

DATA FOR FURNACE MANAGEMENT.—We are pleased to announce, that Mr. S. B. Rogers, of Nantyglo, is now engaged revising his series of papers on this subject, and that we shall shortly be enabled to announce their publication.

We have been informed that a new description of railway chair has been manufactured at the Britonferry Iron-works; we should feel greatly obliged if some of our correspondents would favour us with a description, as we understand the chairs to be a decided improvement on those now in use.

THE CALIFORNIAN GOLD MINING AND DREDGING COMPANY.—Notwithstanding a wish to afford our aid in warning the public from embarking in this scheme, we cannot lend our columns for the publication of the communication of "Saxon." The *personal* nature of the remarks detracts from the utility the "caution" would assume, were the strictures confined to the undertaking and its prospects. Few of our readers would feel interested in tracing the *moves* of what are represented as "adventurers,"—from one lodging and occupation to another,—while we should hardly feel justified in making public the long list of shareholders appended. We shall have occasion, doubtless, to refer to the subject again, when we shall avail ourselves of many of the particulars furnished.

"J. W." (Brettell-lane).—Mr. Mitchell's *Manual of Assaying* can be procured through any bookseller; it was published by Mr. Bailliere, Regent-street; Budge's *Miners' Guide* was published by Longman and Co., Paternoster-row.

"M."—We shall notice the action brought by Messrs. Zulueta against M. Antonio Vineat, when the arguments are concluded, and the judgment given.

"MODERN FALLACIES—NO CALLS! NO LIABILITIES!"—In Mr. Thomas's letter, in last week's Journal, 20 lines from top of page 280—for "*the* agent" read "*your* agent;" 58 lines from top, for "*respondent* to" read "*responded* to;" 66 lines from bottom, for "*but* the truthful" read "*last* the truthful;" 47 lines from bottom, for "its capability its plan," read "the capability of its plan;" 20 lines from bottom, for "asserted" read "assisted;" 2 lines from bottom, for "*the* means" read "*other* means."

THE BRITANNIA TUBULAR BRIDGE.—The total length of the bridge is 1834 ft. 9 in., the span of main or water opening is 460 feet, and the quantity of masonry in the bridge is 1,500,000 feet.

"R. W." (Liverpool).—The General Commission, Ship, Loan, and Insurance Company has failed; they carried on business at offices in Cornhill, but a fiat of bankruptcy has been sued out against the concern, and we presume its affairs will be settled under the Joint-stock Winding-up Act. The amount of debts, liabilities, and assets, has not yet been ascertained.

"A Reader" (Bedfont) had better apply at the office, where he can readily obtain any information he may wish. The position and prospects of the mine have been already well explained, and we should have thought that little else could have been required beyond the report of Mr. A. Dean and the letter of Mr. Ennor. Any broker will furnish information in reply to a communication.

"P. R. H." (Bedford-row).—The length of time which must elapse before dividends from *bond fide* profits on working the line can be declared, is sufficient reason for the shares being at a low quotation. The 5 per cent. interest allowed on the amount paid up in calls has no reference to future dividends, but can only be considered as a return of so much of the shareholders' own money—"from one pocket to the other," by the rather expensive process of a numerous staff of bookkeepers, clerks, &c. The line, when completed, is generally expected to prove fairly remunerative, from the advantages it is known to possess, and the economy and skill exercised in its construction.

Mr. Hopkins is at present in the Tavistock district, inspecting mines, but any communication addressed to 13, Austinfriars, will reach him.

"A Reader" (Ely) should address his letter to some sporting newspaper.

"A Shareholder" (Lincoln).—The matter of the London, Birmingham, and Buckinghamshire Railway will come on before Master Kindersley, on the 12th July next, when the list of contributories will be settled. Mr. Goodchap, of Cheapside, has been appointed official manager.

"An Adventurer" (Neath).—The West Polgooth is a tin mine, situated near the Great Polgooth Mine, in the parish of St. Ewe and St. Mewan, near St. Austell. The sett contains several lodes, two of which are said to be quite sufficient in extent to employ 800 persons for 20 years to come.

MEXICAN COINAGE.—In our last Journal some remarks were made on the productiveness of the celebrated district of Guanaxuato, in Mexico, when the coinage was wrongly stated—it should have been, during the past year—

Silver	$7,773,650
Gold	587,784
Total	$8,361,434

DINAS BRICKS.—In answer to the enquiry of "A Constant Reader" (Leeds), in the Journal of the 8th inst., we are requested to state that the bricks referred to are manufactured by the Llysnewydd Brick Company at their works, Swansea.

"R. W." (Isle of Man).—Address Mr. Joseph Williams, Liverpool, who will readily furnish any particulars that may be required.

"J. B. W." (Newton-le-Willows).—Our Wigan correspondent can only be addressed through the Journal. We never give the names of authors of letters or statements which we publish, unless they may be appended thereto by the writers.

"H. J." (Coggeshall).—There has been 6*l.* 15*s.* paid upon the Trescoll shares, and the price is 10*l.* In consequence of the monthly sales of tin from this mine being more than sufficient to pay working costs, no call was made at the last two monthly meeting.

"G. A. D." (Callington).—The dividends paid by the Devon Great Consols have been 5*l.* each two months, previous to the last, when 9*l.* was declared, and it is probable that 8*l.* or 9*l.* will be declared for the next, after which the usual amount of 5*l.* may be expected to be paid bi-monthly. The meetings are held in London.

"B. W." (Clapham) should address the secretary, at the offices, Old Broad-street.

"Enquirer" (Lincoln's-Inn).—The London and North-Western Railway shares were done at 99¼ on the 19th April last. Our particulars of traffic returns are furnished weekly from the office.

"B." (York).—We do not think there is any address in London. Send a letter to our office, and we will endeavour to forward it. We should be glad to receive some particulars for the Journal, and are at all times thankful for newspapers, containing information of interest to our readers.

"A Tyro" (Tower-hill).—The communication is declined.

Owen Jones (Swansea).—At Freyberg, in Saxony, they smelt about 700 German quintals of ore, which give about 200 quintals of coarse metal, containing about 70 quintals of copper. The calcining of the coarse metal will produce 150 quintals of calcined metal; and by again melting and refining 60 quintals of pure copper will be obtained—this being the produce of 700 quintals of copper ore in one of our furnaces per week. About 10 per cent. of copper is calculated as the result of loss at Freyberg. The constant operation of one furnace, properly constructed, and costing about 60*l.*, will last three or four months, without interruption. Coke is the only fuel used, and is considered most advantageous. On the average of five years' smelting, 100 quintals of ore, through all the processes, consume four cubic metres of coke—one cubic metre of coke is equal to 2·845 cubic metres of charcoal. By using coke, a greater produce of metal is obtained than by the use of charcoal or pit coal. Saxon coal gives about 68 per cent of coke.

BRIDGE BUILDING.—SIR: Although multiplying the weight of a model by the cube of the number which represents the proportion a full-sized structure would bear to its dimensions is the correct rule for determining the weight of the materials required, the approximate rule for determining (by experiment) the load the actual structure would support, is to multiply the load the model will safely sustain, in addition to as many times its own weight distributed uniformly over its surface, as it is less than the intended work, by the square only of that number. Thus, if a model of a bridge is one-eighth of the full size, each and every part whose weight gives strain to the bridge should first be loaded to the extent of seven times its own weight, then each additional load of 1 lb. on the model will represent a load of 64 lbs. on the bridge. The reason for the necessity of first loading the model to the extent stated will be readily understood by supposing its length, width, and height to be extended to the full size, the sectional area of each part remaining the same, the weight of each piece would, of course, be increased eight times, which weight must necessarily cause a strain on the supporting parts eight times greater than that of the small model.—AN ENGINEER OF THE NEXT GENERATION: *June* 18.

WHEAL SAMSON.—SIR: I have done penance for my former communications by reading the reply of the proprietor of Wheal Samson Consols to my last letter, headed "Modern Fallacies." The object of your correspondent, is, if I interpret rightly, to ascertain if I include his adventure in my denunciations; but before he states that object, he pours a torrent of abuse upon me, which, though he unblushingly writes, shames my modesty to read. I am obliged by his flattering opinion of my proficiency in the art of self-knowledge, but I will not arrogate more of his encomiums than are really merited. I did not adopt the cognomen of "Mundic" as being the most congenial to my nature, but simply from a knowledge that in many medical cases of a severe and infectious character, certain deleterious and noxious drugs are found to be the most useful and efficacious. To satisfy your correspondent, I can assure him that I never for one moment contemplated my strictures to be levelled exclusively at his adventure. I certainly had heard of Wheal Samson Consols, but I had never read the purser's letter, dated 25th May, explanatory of the principles upon which that mine is introduced to the public, until the proprietor's letter of last Saturday directed my attention thereto. The supposition, therefore, that my attack was levelled at Wheal Samson is groundless. I emphatically deny it. I see nothing objectionable in the system and nature of that adventure, as explained both by the proprietor and purser; how it will succeed, time will best show. Besides, the indignant proprietor might have spared himself a voluminous epistle, and myself this reply, had he for one moment considered that his adventure, based upon such solid and just principles, the exception to the general rule, could not possibly be included among the deceptions I denounced. Let him rest happy in the conviction that neither the aspersions of the malicious, nor the false representations of the envious, can ever deteriorate or injure the character of the honourable. The censor, Mr. Editor, as you are aware, has a difficult duty to perform. To correct abuses, to shield the public from deception, to warn the too credulous of unsafe and equivocal speculations, is the duty of every man who has seen the result of such glittering fallacies. The strictures aimed at a system whose general nature may be rottenness, will not detract from the genuine merits of honourable exceptions. Far be it from me to injure any adventure conducted on a fair and substantial system. I do not dispute that Wheal Samson Consols is so conducted; both the purser and proprietor vouch for its integrity and legitimacy, and I see nothing in their statements contradictory to truth and fair speculation, but I do maintain that the assurance of no future call or liabilities is, in a general sense, fallacious. This is the last letter I shall trouble you with upon the subject. Your correspondent will excuse me if I do not give my name to the public; it would be of no material benefit to humanity, and I think, with all deference to his opinion, that the cognomen of "Mandic" is rather an honourable one than not, since it is well known that "poisonous scum" could not possibly exist, were not some nobler metal contiguous. I have replied briefly, but still at greater length than your correspondent's letter deserves, but I was anxious to convince him of his groundless suppositions, and that, "rogue and fool" as I am, I have, nevertheless, sufficient of the gentleman in me to know what is consonant with the character of one, in treating the abusive portions of his letter with the silent contempt such language deserves.—MATTHEW MUNDIC: *Camborne, June* 18.

WHEAL SAMSON.—We have received a communication from Mr. Ennor, in which, after some judicious remarks respecting the correspondence on the "No calls—no liabilities" question, and for which we regret we cannot afford space—he says, "Having resided for many years in St. Teath, and owning lands in the parish, I know every lode there that has had 5*l.* spent on it (and the quantity of ore which I have returned convinces me it is a mineral district), but I am not aware as to the situation of Wheal Samson—will Mr. Thomas be kind enough to inform me whose land it is in?"

*** It is particularly requested that all communications may be addressed—

TO THE EDITOR,
Mining Journal Office,
26, FLEET-STREET, LONDON.

And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, JUNE 22, 1850.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

Since we last noticed the subject of PUBLIC MINING SCHOOLS, considerable progress has been made; and the public are becoming interested and aware of the importance of such an institution. Our Cornish friends, "One and All," join in a memorial, signed by upwards of 300 of the principal owners and captains of mines in Cornwall, and which document has now been presented by Sir C. LEMON to Lord J. RUSSELL. A memorial from South Wales, of which we gave a copy in a former Number, has been signed by all the influential iron and coalmasters, public bodies, and others, interested in the subject in that district, and is now in the hands of Sir B. HALL, Bart., M.P., one of the largest mineral proprietors in South Wales, for presentation to Lord J. RUSSELL. Other memorials have been already presented, or are in course of signature, through nearly every mining district in the kingdom.

The Government Commissioners for the Inspection of Mines, in their reports, strongly urge the importance of education to fit miners for their profession. Mr. J. KENYON BLACKWELL observes—"Although the actual occurrence of explosions may often be traced to the ignorance or carlessness of subordinate agents, or of the workmen, their primary causes, even in these cases, must be generally assigned to the want of skill and care in the management of the mine, which has produced the conditions that render this carelessness dangerous. It must be allowed also that, in many districts, those who have been intrusted with the management of mines have often been scarcely removed in intelligence, or acquirements, from the rank of common workmen—their knowledge being frequently so limited, that the improvements made, and the principles observed, in one district are quite unknown in others."

The memorialists, however, complain that, in many instances, no competent managers can be procured, and there are no means in this country by which any one can publicly acquire the necessary knowledge. With these facts before them, is it just for the Government to blame mine owners when accidents do occur? Is it not the duty of the Government first to provide the means for the protection of life, suggested by their commissioners? After the plain facts brought out by the reports of the commissioners, and these memorials, we are bound to consider the Government themselves morally reponsible for most of the accidents and loss of life which may occur in our mines, until they provide means to educate the managers, in whose hands the lives of the workmen are intrusted. We have public schools of design, others for military science, and others for sculpture, painting, &c.; but our mines, the great source of our national wealth and power, are neglected, and hundreds of the valuable lives of our fellow-men who toil in them are annually sacrificed to the demon of ignorance. This cannot continue.

As fast as the course of things can carry us, we are stretching forward through our annual circuit, and every setting sun brings us nearer to the heat and sultryness of Midsummer and the dog days. Although, in some sense, this may have its pleasures, it has, undoubtedly, its dangers also, and to those who live all the year round within the limits of this crowded metropolis, or, at best, take shelter at the extremity of its wings, the peril of an uncleansed and an unpurified city, from which we may not at present permanently release ourselves, is so serious as to call for an earnest attention, and a serious remonstrance.

The new board of Metropolitan Commissioners of Sewers is the point to which we are justified in looking for the security of the health of the millions dwelling in these cities—as far, that is, as the improved drainage of this great hive can affect that important and vital element. But, unhappily, as far as the working of any practical measure is concerned, the new board is as slow and as tortoise-like as the old, and, probably, will disappoint more hopes than did its predecessor. Whatever may be our hopes, we are as likely as not to have the malignant visitor of last year, running to and fro in our streets, and, with his now practised eye selecting and then slaying his victims, unlet by any resources with which the new commission has, in any sense, armed us. Why has the commission left the metropolis so defenceless and in so much danger? Why has it spent so much time in the examination of impracticable plans, and in the criticism of colossal follies? while that one simple work, that first and most important of all its duties, the perfect drainage and the full water supply of the town has been forgotten or neglected. The public would have taken thankfully a measure for the realisation of such benefits as are, undoubtedly, within our reach, without finding fault with the commission for not having accomplished those which, to all human appearances, are beyond it. We repeat it, measures might by this time have been matured for the instant removal of the night soil of the whole metropolis, and for supplying every foot of its vast area plentifully with water for all household and all sanatory purposes. But the commission has left all the cesspools and reservoirs of filth unemptied, and straitened the poorer neighbourhoods, in withholding those disinfecting and refreshing streams which would have done more for the public health than all the remedies of the apothecary. Whatever we might be induced to say on this subject, we make no doubt but that the commissioners have a sufficient reserve of excuses and subterfuges for their corporate supineness; but we know enough of the public sentiment with respect to them to be able to affirm, that in not attempting to cleanse the town, because they cannot, at the same time, cleanse the Thames, in leaving us exposed to all the dangers of a malignant invasion, when they might have done much to limit both their number and their force, their sitting longer as a sanatory commission is likely to be more detrimental than advantageous to the public whom they affect to serve.

Our numerous friends in the county of Cornwall will, we think, excuse us in calling their attention to the position of the district generally as to the great NATIONAL EXHIBITION for 1851. We believe that, as a whole, the country is sufficiently alive to the advantages likely to arise out of this magnificent attempt. The zeal and emulation it is calculated to create throughout both England and the world may give the practical, the mechanical, and all the manual arts such an impulse and acceleration as otherwise, and in the ordinary course of things, they might not receive in the entire lifetime of a generation. Let Cornwall, therefore, we say, the immemorial seat of mining and the connate arts, partake as largely of the passion, and share as fully in the advantages of this great enterprise as possible. There are eleven committees in reference to it, formed within the county; up to this date eight have made no return to the Royal Commission at all; three have made single returns, and thus given a pledge of their devotion to the objects contemplated by its illustrious patrons. The single return of Truro amounts to 90*l.*, of Falmouth to 21*l.*, and of St. Austell to 14*l.*—making together 125*l.*, from a county containing nearly 400,000 inhabitants. We know our friends in the county a great deal better than to suppose that this is otherwise than a fraction, and a very small one too, of their intended aggregate contribution; for we believe that the spirit of the undertaking will be quickened into greater activity as it nears and reaches its consummation. But the commission needs the inspiration and support of the local committees at large, and the committees, every one of them, need to give it for their own honours' sake, and also for the sake of those whom they represent. It is with this view, and for this object, that we call the attention of the gentry and the people of Cornwall to their privileges, not to call them duties, in this emulative crisis, and to urge those who have not yet made any return to a little increased alacrity in doing so, and those who have entered upon that work of grace to renew their liberal remittances to the Royal Commission.

IRON AND MACHINERY FOR SPAIN—SUPPLY OF WATER TO MADRID.—Madrid, like many other cities and towns on the continent, has hitherto depended for its supply of water upon the water-carriers—a method which must be, of course, wholly insufficient in a sanitary point of view, particularly in a warm climate. In this age of progress, even sluggish Spain is arousing itself, and Count Returnosa and Senior Martiani have obtained a concession from Government for 99 years, for supplying the city with water from the River Lozoya. A company has already been formed, and agents have been sent to England to enter into contracts for supplying the necessary quantity of iron pipes, a pumping-engine, and machinery, for carrying out this desirable object. The machinery will be admitted at a merely nominal duty, and it is probable so good an example will be followed by all the principal cities and towns, and thus cause a large and continuous demand for British iron and machinery. The Duke of Glucksburg has also set out for England to purchase the requisite machinery and implements for working extensive mines near Puerto Rico, lately explored, and found to be rich in metal. Several Cornish miners are expected to return with the party. Much excitement was caused at Madrid in consequence of the reported invasion by the American buccaneers on the Island of Cuba; and great preparations were making to send out reinforcements immediately to the Havana for the protection of the inhabitants, and those embarked in mining speculations.

NEW GOLD-WASHING MACHINE.—As soon as it was known in France that gold had been discovered so plentifully in California, a number of speculators and mining adventurers immediately issued forth prospectuses for the purpose of forming companies for working the auriferous sands of the El Dorado, each offering great advantages to those who should invest their capital in taking up shares; in consequence of which, about 600 or 700 working miners have already taken their departure from Havre for San Francisco, accompanied by a director, experienced engineers, surgeon, implements and materials of every description for washing and amalgamation, and for their own convenience. One of the companies, "La Fortune," has been established for working or washing the auriferous sands by a patented machine, which, according to authenticated experiments, with five men will do the work of 100, and surpasses any other yet invented, as by the usual operations only two-tenths of the gold is recovered, while by this there are nine-tenths saved. The new gold-washer consists of a frame, under which runs a shaft to receive the auriferous sand from the hopper or reservoir for the ore, and by running down a gutter, made like a sieve, the sand is washed off; there is a pump with a leather hawser, turned by a lever, which, by each revolution, supplies a reservoir with water; to this is attached an iron pipe or tube, with a cock; this tube runs into the hopper, and has six holes with small pipes of water running into the cylinder below, which keeps turning at each move of the pump handle, thus shaking and washing the sand. At the hopper end a man keeps up a constant supply of earth or sand, and which by the action of the shaft keeps running into the lower part. After a certain quantity has been washed, it is taken out and filled afresh. There are four of these machines to be set to work for the present. According to the returns, it appears that, at present, each workman can obtain, on an average, daily one ounce of gold; to do which he is obliged to wash, with much trouble, 5 cwts. of sand or earth; but, notwithstanding all his industry, at least four-fifths of the gold escapes. In California the washing of the auriferous earths is by the batia; in some parts with the cradle, or with inclined planes (called Siberian tables); but, do what they will, each man cannot get more than 1 oz. of gold out of 5 cwts. of earth. With this new machine, however, four men will be enabled to wash 5 tons of sand, which, on an average, will yield 80 ozs. of gold, of the value of 240*l.*

CENTENARY ANNIVERSARY OF THE BIRTH OF WERNER.—This distinguished mineralogist was born at Wehrau, on the Queiss, in Upper Lusatia, on the 25th Sept., 1750. He received the rudiments of his education at Bunslem, from whence he went to the academy at Freyberg. In his twenty-fourth year he published his *Treatise on Mineralogy*, and in 1775 was appointed Professor of Mineralogy in the Mining School of Freyberg. In 1791, he published his new theory of mineral veins, which obtained him much celebrity, and was simultaneously translated into English by Anderson, and French by D'Aubisson. His cabinet of minerals contained 100,000 specimens, and sold after his decease for about 4000*l.* After a life of industry in the service of science, he expired on 30th June, 1817, in the sixty-seventh year of his age. A number of gentlemen of Freyberg, connected with geology and mineralogy have determined to give a grand *fête*, to commence on the 24th September next, and end on the 26th, when his pupils, admirers, and strangers from all mining countries in the world are especially invited to attend. There will be an ovation over his grave, lectures, experiments, visits to the museums and School of Mines, and parties desiring to attend, must send in their names before the end of August.

VENTILATION OF COLLIERIES.—Mr. J. S. Ritchie, in a communication to the Royal Scottish Society of Arts, on a "New Method of inducing an Upward Current in the Upcast Shaft of Coal Mines to promote Ventilation," says—"The current is induced by means of pipes heated by water circulating in them, fixed round the circumference of the shaft, in such manner, within the line of it, as shall shield them from injury, leaving sufficient exposure of them to communicate their heat to the air in the shaft; the furnaces for heating the circulating water being at the nearest convenient distance, at a considerably lower level than the orifice of the shaft, as on the depth at which they are placed will depend the perpendicular extent of the upper part of the shaft around which the pipes may be placed. Certainty of action could, with ordinary caution, be relied on, as, even if one of the circulations ceased from any cause to act, the others would during that time continue in action. A similar application might also be made at the lower orifice of the shaft, and even extend in some measure to the workings; or the fires now in use at the foot of the shaft might be retained, and the application alone made at the upper part in aid, to promote greater certainty and steadiness in the current. It was submitted that a similar application might be made of steam as of water."

GOVERNMENT INSPECTION OF MINES.—So early as the 15th century, in the great coal district of Liege, there was a "court of mines," composed of seven inspectors, two of whom were obliged to descend the mines every 15 days, for the protection of the workmen, the security of the mineral, and to record for the information of posterity where it had been worked. In the 17th century, King Philip passed an ordinance, recognising the authority of their *Cour des Ferans*, which had been long before established. The Duke of Limbourg, in the latter end of the same century, issued an edict, with proper instructions for the coal mines of that Duchy; and Adolphus Frederick of Swedon, in 1741, refers to the existence of a mining college, that possessed great control over their iron mines, which has resulted in their unsurpassed production of iron. King William of the Netherlands, in 1817, legislated on the mines of that country. The state deputies of Heinaut, in 1823, being taught by England, though erroneously, that the Davy lamp was a safe instrument for mines, did what England with the same belief never attempted—passed a law for its use in all the mines of Hainaut. Here was a care for life, England would do well to imitate. The King of Belgium, in 1837, instituted a council of mines, consisting of a president and four councillors, with a registrar; this court to be empowed to call together the engineers of mines, the miners, &c., whenever it thought it necessary;—a court of appeal, protection, and instruction, that does credit to Belgium. And France, by a decree of Napoleon, in 1810, authorised Government inspectors to interfere, when the public safety, the preservation of the pits, the strength of the works, the safety of the miners, or the habitations on the surface, were involved in any risk by the mining operations. Even in the disturbed times of the first French revolution they had a council of mines, and for 40 years have been in possession of a splendid college of mines at St. Etienne. These mining regulations can be with justice appealed to as the sources of great advantages to the mines of these countries, and to the safety of human life.

EIGHT HOURS MINERS' BILL.—A meeting of miners of Wolverhampton and its vicinity has been held, to petition the House of Commons to enact an Eight Hours' Bill, for the working and regulating of the mines and collieries in Great Britain. The object of the meeting having been explained in a temperate address by Mr. E. Kinsey, Mr. W. Daniels argued that, if a Ten Hours' Bill was necessary in cotton factories, where the operatives encountered little or no danger, and pursued their occupation in the cheerful light of day, how much more necessary was it to restrict and regulate labour in mines and collieries, where the workman was constantly exposed to the loss of life from explosions, arising from imperfect ventilation, and other accidents. Lord Brougham (he said) had described the miners as the mainspring of England's prosperity, and it was somewhat hard not to allow them oil enough to keep the machine in order. The meeting, which was thoroughly peaceable and orderly, broke up after adopting the resolutions proposed.

An iron hotel, of very large dimensions, was shipped for Natal on Tuesday; it was manufactured of corrugated iron, at the works of Mr. Walker, of Gracechurch-street.

THE IRON TRADE IN AMERICA.—The New York *Tribune* says—"The great Lackawanna Iron-Works of the Messrs. Scrantons, are now making 40 tons of railroad iron daily; while no other concern in the Union is known to be making a solitary rail. This iron is of such excellence, that the makers sell it easily at $7 per ton advance on the price of merchantable English rails."

NEW MINING MACHINERY.

During the past fortnight several gentlemen from Cornwall, and others connected with the mining interests, have visited the factory of Messrs. Donkin and Co., engineers, to witness a series of experiments on a new pump, designed for raising water from mines or other deep levels, by direct action, without the intervention of either main rods, buckets, plungers, or valves. The machine used on the occasion for showing the action of the pump was a 1-horse power Bishop's improved disc engine, which possesses the extraordinary character of being applied either as a steam-engine to drive machinery, or, being driven by other machinery, to form a pump; it consists of a short cylinder (in this case 8 in. diameter), placed longitudinally, in which a disc with a projecting arm vibrates with a rolling motion. It was actuated by a steam-engine of similar form; but water, wind, or horse-power would do equally as well to show the same result. On the disc being set in motion, an immediate vacuum is formed at the induction port, to which the windbore or suction pipe is securely fixed; the water now rushes up, and fills the space between the cylinder and disc, which continues until the disc is opposite the delivery port, when the contents of the cylinder is forced out of the delivery port up the column, at the same instant the vacuum is forming on the opposite side, and a fresh supply is following that which is being delivered; thus, the only suspension from continual action is the instant of time the disc occupies in passing the ports, which, in consequence of the rapidity of motion, does not cause the least intermission of the passing current. The column here used was a 2-inch pipe, about 40 feet high; the water was ejected in a solid continuous stream, with the greatest ease, at a velocity of 2½ feet per second, and very much to the admiration of every one present. A small wooden model in sections was then shown the visitors, whereby all its working parts were explained; it is extremely simple, and does not appear in any way subject to derangement. A large pump on this system is in daily use draining a marsh in Yorkshire, throwing in a continuous stream of 10 tons of water per minute; and one on a scale sufficiently large to raise 400 gallons per minute from a mine in Cornwall, 100 fathoms deep, is in progress; the assumed estimate of its duty is 110,000,000, or 3½ lbs. of coal per horse-power.

There was also exhibited a 6-horse power disc steam-engine, constructed for exportation, on the model of the powerful 50-horse power engine, now erecting at the West Polgooth Tin Mine, near St. Austell, Cornwall, for driving the new 48-head stamps, and draining that mine. On the steam being admitted full force, the engine ran at the rate of 300 revolutions per minute; it was then reduced to 200, 100, 50, and eventually to 10 revolutions. At each of the several speeds it was under the perfect control of the driver, and worked with the greatest ease, regularity, and steadiness. The engine is high-pressure, expansive, and condensing, and has neither fly-wheel or crank. It is not of that class of engines called rotary, as the disc within the cylinder oscillates, and by its alternate change of position causes the radial arm which runs through its centre to form a circular motion, which it transmits, without any dead points, direct to any machinery required to be driven. There are now several of those engines near London in full work. One of 8-horse power drives all the new machinery at the *Times* printing-office, where its capabilities have been submitted to a severe test, having been kept running night and day for six months, without having the cylinder cover removed, or any of its packing touched. When examined, it was found in the most perfect order, and in better working condition than when new. There are also four of the same pattern working at Mr. Dickenson's paper-mills, and in every case their performance has given the greatest satisfaction.

THE SCOTCH IRON TRADE.

[FROM A CORRESPONDENT.]

I cannot pass by the gross mis-statements as put forward by the reports from Liverpool from time to time, and again in the last number of your Journal, respecting the stock of Scotch pig-iron, no doubt emanating from the same sources as the extraordinary statements in the *Times*, *Chronicle*, and *Daily News*, which will be fresh in the memories of your readers. The Liverpool report says, "Scotch pig-iron is very dull of sale; although the make is reduced considerably, it is amply sufficient for the demand, and the stock, about 300,000 tons, *remains untouched*." Let your readers judge of the truth of this statement. Say that 55 furnaces have been in blast during the last month, and allow them to produce 110 tons *saleable* iron each per week (many of them have not produced more than half this quantity lately, having nothing but binn and inferior coal to use), and we should have a production of 24,600 tons for the month. The shipments for the month of May were about 37,000 tons, as per returns from the tonnage offices, &c.; and the local consumption for malleable works, foundries, &c. (although all the Dundyvan works have been standing nearly the whole time), at least, 25,000 tons for the month—that is to say, 62,000 tons have been exported and consumed, and only 25,000 tons produced; *ergo*, the stock has been *diminished* by 37,000 tons during the month, whatever your Liverpool correspondent may choose to assume the stock to have been.

Another of your correspondents, I perceive, makes the stock on the 10th inst. 240,000 tons; and this is certainly not so far from the truth, though I must still maintain the correctness of the statement as to stock, which appeared at page 239 of the *Mining Journal*—namely, as not exceeding 230,000 tons; to which may be added a month's make, 25,000 = 255,000; from which deduct a month's shipment and consumption, 62,000—showing present stock as 193,000 tons.

It will be seen that the shipment and consumption have both exceeded the estimated monthly average quantities, as given in the *Mining Journal* of the 18th May; and also that more furnaces have been standing than was anticipated, so that a quicker and greater reduction in the stock is likely to take place; for up to the present time the colliers remain quite firm in their determination to hold out, and even should they resume, a large number of furnaces will be kept out, until a higher range of prices is established. It should also be borne in mind that a large portion of the stock consists of east and west coast and Ayrshire brands, and that there are only about 20 furnaces now producing what is known by the trade as good mercantile brands, f. o. b., which have to supply the principal demand.

The shipments for May are—From Broomielaw, Port Dundas, and Kirkintilloch, 18,237 tons; Greenock and Port-Glasgow, 1050; Ardrossan and Irvine, 7953; East Coast, 5350; West Coast, 4090 = 36,680 tons.

Glasgow, June 20.

MINING IN WALES—THE MILWR MINES.

[FROM A CORRESPONDENT.]

Appended you will receive a copy, as near as it may be, of a notice sent to the managing agent of the Milwr Mines, and posted against the office door on Saturday last, but which was directly taken down, showing opposition to be subject to the rule of eight hours. I have now been informed the Milwr Mine agents have just returned from their runaway, and, so-called, cowardly trip, and that many of the men have agreed to sign the rules to-morrow. If this is done, I have no doubt the agents will do their best to set the mines going again; but this may require some time, even if the directors should be willing to submit to be trifled with, and my hope is, that the matter may now be fairly settled, and that the company may consider the further capital required for draining the mine safe; I mean to a certain extent, as far as the men go; and that capitalists will give countenance to the Flintshire mines as well as other mining districts, less deserving attention.

At a meeting of the directors of the Milwr Mines, held in Liverpool, this 18th day of June, 1850—Major WRIGHT in the chair—who stated that this meeting being convened for the purpose of considering the most effectual means of preserving the property of the company, and the peace of the neighbourhood, the correspondence of the managing agent having been read, showing the dead standstill intended to be made against the eight hours rule of working, it was resolved:—

That no bargains shall be let on or after the 18th inst., unless the parties taking them agree to sign and conform to the rules introduced at the starting of the mine, 18 months ago, and acted upon up to this time, so far as circumstances admitted to be reasonable and practicable.

That a copy of this notice be sent to the managing agent, and that he be requested to post it in some conspicuous place near the office. Signed by the directors.

COLLIERS' STRIKE IN MONMOUTHSHIRE.—There appears at present no disposition on the part of the men to resume work; they conduct themselves peaceably, meeting daily, in large numbers, on a field near Blackwood, to discuss their plans. The port of Newport suffers much from this strike; the labour and shipping employed to transport upwards of 2000 tons of coal daily are, to a great extent, idle.

New Patents.

SPECIFICATIONS ENROLLED DURING THE PAST WEEK.

JEAN BAPTISTE ECARNOT, France: for improvements in the manufacture of sulphuric, sulphurous, acetic, and oxalic acid, and nitrates. The patentee states that, in manufacturing the acids enumerated in the title of his patent, a bi-oxide of azote is formed, which combines with the oxygen of the air, and escapes in the form of hypo-azotic acid, and is consequently lost. The latter is soluble in steam or water, and forms in addition bi-oxide, which has again to be converted. Now the present invention consists in subjecting the bi-oxide, in a close vessel, to the conjoint action of air, steam, and water. For this purpose he employs a vessel, or hollow column, composed of earthenware pipes, strongly luted together, and filled with pumice stone. The bi-oxide is conveyed to the top of the column, and is made to percolate through the porous substances, and meet a current of air, which is driven up from below by a fan or other blowing apparatus. Steam and water is also made to accompany and mingle with the bi-oxide in its passage through the close vessel.—No claims are made in this specification.

ALFRED DALTON, West Bromwich, Stafford, ironfounder: For improvements in reverberatory and other furnaces. Mr. Dalton states that in reverberatory and other furnaces, in which air is admitted into the interior above the fire, a portion of the sides has been made of perforated fire-brick, or stone, or of fire lumps, bricks or stones, placed apart, and that through these perforations or spaces the air is admitted. But that, after being a short time in use, a portion of the crown or other part of the furnace becomes melted and runs down the side, which, together with the clinker, soon stops up the air passages. To remedy these evils, the patentee proposes to recess or set back the sides through which the streams of air pass, in order that the melted substances may fall direct without running down the sides and choking the air passages. In the case of puddling and other furnaces, employed in heating and melting, iron plates of perforated iron, or iron bars, are to be substituted for the perforated bricks, or air passages, before described.

Claims.—1. The mode of constructing the fire places of furnaces wherein streams of air are admitted above the fire bars by recessing or setting back the sides through which the streams of air pass.—2. Constructing the sides of the fire-places of puddling and other furnaces employed in heating or melting iron, through which streams of air are admitted, of perforated iron, or of iron in the form of bars.—3. Combining the arrangement of flues, shown in the drawings [but not referred to in the specification], with the use of perforated iron plates, or iron in the form of bars.

TIMOTHY HACKWORTH, and JOHN WESLEY HACKWORTH, Soho Works, Sheldon, Durham, engineer: For improvements in locomotives and other engines. The patentees describe and claim,—1. An arrangement for varying the lead and traverse of the valve independently of each other at the will of the engineman, by working the lead of each cylinder from its cross-head, and the traverse from that of the other cylinder. In the case of single-cylinder engines, the same result is obtained by the employment of additional gearing.—2. Obtaining a long stroke from a short stroke cylinder in locomotive engines "by adapting to the cross-head an arm, which is connected by a link to a lever working outside, and attached at its lower end to a pin on the driving wheel."—3. Making the fire-box cylindrical on all sides except at top, which is flat, as is also the top of the boiler, for the purpose of carrying coke; the whole being surrounded by a hand-rail, or wire sides, to prevent the coke from falling off. The water reservoir is carried on the engine itself, with a space between it and the boiler. The waste steam is to be pumped into the reservoir.

JOHN DAVIES and GEORGE DAVIES, of the Albion Foundry, Tipton, Staffordshire, engineers and ironfounders: For improvements in engines worked by steam, air, water, and other fluids, and whether locomotive, marine, or stationary; and also in boilers; the principle of which improvements is likewise applicable to blowing air and pumping water. The patentee describes and claims—1. Certain improvements in the disc engine of peculiar construction.—2. A peculiar construction of steam-boilers with two sets of tubes, by which the products of combustion are made to pass through one set to the further end of the furnace, and to return to the front end through the second set of tubes.

LIST OF PATENTS GRANTED DURING THE PAST WEEK.

C. Lamport, Wortrington, Cumberland, ship-builder, certain improvements in machinery or apparatus for lifting and moving weights, working chains, and pumping, which improvements are more especially adapted to ship use.

C. Greenway, Green-street, Grosvenor-square, improvements in ships' and other pumps, in anchors, and in propelling vessels.

B. Cheverton, Camden-street, Camden town, artist, methods of imitating ivory and bone.

C. Hanson, Stepney, engineer, certain improvements in steam-engines, steam-boilers, and safety valves, and in apparatus and machinery for propelling vessels.

I. Hartas, Wrelton Hall, York, improvements in machinery for obtaining motive power.

R. Heath, Manchester, iron merchant, and R. H. Thomas, Woolstanton, Stafford, engineer, certain improvements in the manufacture of iron.

E. Baldwin, Philadelphia, Pennsylvania, a new and useful method of generating and applying steam in propelling vessels, locomotives, and stationery machinery.

R. Weare, Angel-court, Throgmorton-street, clock and watch manufacturer, certain improvements in the means and apparatus for extinguishing fire, and in galvanic batteries.

G. Robarts, Tavistock, gentleman, for certain improvements in clogs and pattens.

G. Malo, Dunkirk, France, shipowner, certain improvements in propelling vessels.

W. Saunders, of the firm of Randell and Saunders, Bath, stone merchants improvein sawing and sawing machinery.

J. Hunt, Stratford, Essex, engineer, improvements in forming and moulding plastic substances, and the machinery and apparatus employed therein.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

W. Pilbeam, Acton-street, Gray's-inn-road, smoke-preventing chimney pot.
G. Baddeley, Oxford-street, boot.
R. Robinson, Eliza-street Works, Belfast, compound bar furnace.
C. Burton, Trowbridge, elastic mauler for a weaver's harness.
W. Bird, Oxford-street, boot.
F. and C. Huxham and J. Brown, Exeter, driving motion for hand mills.
A. Remington, Shaftesbury-crescent, Pimlico, self-acting baster and vertical heat reflector for roasting.
Taylor Henry and Co., White Lion-street, Spital-square, imperial disinfecting filter.
P. Le Capelain, the elder, Long Acre, portable oven.—*Mechanics' Magazine.*

EXTRAORDINARILY RAPID COMMUNICATION.—The Peninsular and Oriental Company's steam-vessel, *Indus*, which left Southampton on the afternoon of the 20th of May, reached Malta on the 30th with the outward India mail, left with the same for Alexandria on the 31st, and got back to Malta, *en route* for Southampton, with the homeward Bombay mail of the 11th of May, on the evening of the 8th June. The *Sultan*, belonging to the same company, which left Southampton on the 29th of May, reached Malta on the 8th of June, and left for Constantinople on the same day at noon.

WEST INDIA MAIL.—The *Severn* arrived at Southampton on Tuesday morning with the usual British and Foreign West India and Mexican mails. She brings the following on freight:—Specie, on merchants' account, from Tampico, value $419,519: ditto from Vera Cruz, $72,938; specie for account of the Committee of the Mexican bondholders, $60,725; ditto from Jamaica, $752; ditto from Havannah, $14,000; from other parts of the West Indies, $56,094, the total value being $624,127, all of which is in silver, or say about 125,000*l.* sterling. The freight list also comprises 34½ lbs. platina.

WEST INDIES—DISCOVERY OF GOLD.—The Trinidad papers state that great excitement had been created in Port of Spain by the receipt of a circular fully confirming previous accounts of gold in large quantities having been discovered in the Yaruary River, district of Upata, in Angostura, of Columbia, province of Carthagena. A rich mine is said to have been opened, from which samples had been obtained in gold dust and grain of various sizes. Of the latter the average size was that of the coffee berry, and the standard of fineness was 24 carats. Important benefits were expected to arise from this discovery, and the local paper observes, "Port of Spain will become the Chagres and the Panama of travellers to the new gold region." The latest accounts received from the mines are given in letters dated Cuidad Bolivar, 8th May.—The value of the imports into Trinidad during 1849, are said to exceed those of 1848 by upwards of 50 per cent.

CALIFORNIA.—The steam-ship, *Panama*, arrived at Panama on the 21st of May, with nearly $1,000,000 in gold dust; she reports that business was prosperous, and that great activity prevailed; prices of produce were advancing; there was an immense immigration. The *Alabama* was at New Orleans with $62,000 in gold dust. Serious attacks had been made by the Indians on the Californian emigrants. The *Philadelphia* was at New York with upwards of $1,000,000 in gold dust.

SOUTH AUSTRALIA.—Adelaide papers of the 23d of Feb. state that the requisite number of shares in the South Australian Gold Company not having been subscribed for, the directors had come to the determination of returning the whole of the deposit money on such number of shares actually taken without deductions for expenses. The prospects of the undertaking had undergone no change, but the necessary working capital for carrying on the business would be provided by the original proprietors, and the washings and explorations be continued on their personal account with unabated vigour. The Adelaide City and Port Railway Bill had passed on the 19th Feb. The Governor would be applied to in order that a sufficient sum might be placed in the estimates for 1851, to enable the local Government to carry out the project, and application would also be made to the Home Government to send out the necessary materials, with as little delay as possible.

Letters from Leghorn mention that a good deal of quicksilver is now coming from a mine in the neighbourhood of that city; 5000 cwts. put up in iron bottles had been sold at lir. 3.17.8, or about 3s. 7½d. sterling per lb., on board.

The splendid viaduct across the river Blyth, connecting Bedlington Colliery with the line of railway running to Hay-hole, has just been opened. It is 30 feet high, and 770 feet in length. The contractor was Mr. Call, of Westoe, and the engineer, Mr. Nicholson, of Newcastle. We understand that 20 keels a day have been shipped since the opening of the viaduct. We hear also that there is some talk of running passenger trains from Percy Main to Bedlington.—*North and South Shields Gazette.*

SMOKE PROHIBITION BILL.—In the House of Commons, on Thursday, Mr. G. Banks gave notice that he would postpone moving the second reading of this bill till Wednesday next.

The South Devon Railway Company are experiencing a great increase in their traffic, the weekly return to last Saturday giving the amount at 2160*l.* This, it is said, has induced some of the largest proprietors of the old shares to prepare a scheme for making an arrangement with the holders of the preference stock, in terms of which both classes of shareholders would receive a dividend, by ranking the nine years' preference shares according to their relative value with the original stock, and it is said that 38*l.* would be about a fair estimate.

Original Correspondence.

GOLD MINES AND CANALISATION OF THE ISTHMUS OF DARIEN.

SIR,—My absence from home until yesterday prevented my receipt of your valuable Journal, and answer to Mr. Hopkins's able letter earlier. Mr. Hopkins must admit that his misquotation of my words, in saying "rivers and rocks in San Miguel" gives, at the least, a very vague and loose idea of the *locale*. My designation of the places where I worked was more precise. I do not know what foundation Mr. Hopkins can allege for his very dictatorial denial of the richness of the gold mines of Darien; he appears to conclude that, because he found the gold washings of Veraguas and the Isthmus of Panama about Pequeni, Chiman, Penonomè, &c., to be poor; *ergo*, the rocks of Darien are valueless. Now, though hitherto considered poor, some of these washings have lately been discovered to be rich, as in January and February there were several large companies of Americans digging, with great success, in Veraguas, and two had returned to the States with a very large amount of gold, for the purpose of bringing out a company. Near Santiago, on the estate of Signor Romero, ex-governor of Veraguas, the average return reported was ½ lb. of pure gold for every 25 lbs. of auriferous dust washed up; also, on my recommendation, numbers went to the washings of Mariprieta, San Bartolonia, and Juan Dias, near Panama, and were pretty successful. After having dug some months in California, and subsequently got gold out of Darien, and sold it in Panama at $18 per ounce, I do not think I can, with fairness, be said to have been led away by interested persons, neither can I guess who could have had an interest in leading me away. I did not direct attention to mining indiscriminately in Darien, but to a particular locality—viz.: Cana and its vicinity, San Juan, San Jose, Seteganti, Zumbaisalie, Quebra Honda, &c. I have already agreed with Mr. Hopkins that no other part would be worthy of a company's notice, but I am decidedly of opinion that the Cerro del Espiritu Santo, of Cana, would be productive of enormous wealth.

The party of whom Mr. Hopkins makes mention, appears to have gone on a monkey-hunting, rather than a gold-hunting, expedition. Men who think more of unattainable luxuries, such as meat (beef), are not fit to bring into the bush. I never tasted animal food on the isthmus or in California, where buiscuit was my sole food, as I considered the beef to be too caoutchouc like. Mr. Hopkins should have written Chuquanaqua and Pinogana for Chuchunque and Puigana; and no European ever visited Cana until I went there, since the closure of the mines in 1685, after Sawkins and Sharp's buccaneering expedition. *El Panameno* and the *Panama Echo* and *Star* are edited by men of talent and local knowledge, well capable of judging of what is represented to them. Dr. Coullet and Mr. Morel, of the *Echo*, conduct their paper as well as any editors in Europe; therefore, I do not see sufficient reason for excusing Mr. Hopkins from referring to those papers. The French party appear to have been sadly mismanaged; I cannot make out what they did, or what they had proposed to do, neither do I think that they knew well themselves. If they all travelled, as a French engineer (most probably their chief) did, who went to La Marea, in Darien, carrying with him a canoe laden, not with instruments, but with cases of claret and brandy, and driving away the natives from giving him any assistance, by cursing and abusing them, I do not, at all, wonder at their sickness. This Frenchman, of whom Mr. Andrew Hossack, an Inverness man, living at Chapigana, in Darien, gave me full information, started on the way to Cana, with guides, &c., and one Indian laden with bottles of brandy; but, getting sick on the road from brandy drinking, was obliged to return, without having reached Cana. They say, however, that he got a good deal of gold out of La Marea, and put it in his own pocket. Moreover, Frenchmen I have always found to be the very worst subjects for roughing it. Whilst I remained at Chagres eight days, although there was sickness amongst the natives in the town, yet the opposite side of the river's mouth, where the Americans were encamped, was healthy; only one man died, I was sent for to see him, and found him dying, not of fever, but of *delirium tremens*.

Mr. Hopkins is quite right as to the difficulties attendant on bringing raw Europeans into the forests of the isthmus. Few are adapted to the semi-savageness of bush life. Mr. Hopkins must have encountered many difficulties, and found his movements impeded, and his operations restricted by these circumstances. I brought Judge Shattuck, of the Mississippi, and his company of 12 into Darien, and had to leave them at La Marea, near Chapigana, above the mouth of the Tuyra. They might have got considerable quantities of gold; but they had been too long used to *loafing*, were excessively lazy, and, like the party Mr. Hopkins speaks of, thought more of the gratification of their animal propensities than of working. I procured them plenty of cassava, plantains, maize, camotes, or sweet potatoes, yams, pumpkins, &c., and some tiger fat; but they continually grumbled at not having beef, pork, sugar, tea, and other matters, unknown in those regions. They wished to make a precipitate retreat from Darien; but could not get away until they had made canoes for themselves. They were, therefore, obliged to become woodcutters and boatbuilders; and, although they were fully two months in Darien, yet so far from suffering from sickness they all appeared to have become more robust. I do not think that any fever exists in Darien, beyond the intermittent, or ague, which occurs even in England. As to mine being a hurried visit, I say nothing, except that I travelled three months on the isthmus gold hunting; and the party Mr. Hopkins speaks of were *upwards* of a *week* monkey hunting.

In conclusion, acknowledging most fully Mr. Hopkins's perfect competency to give an opinion, and recognising his opinion as standard authority in all things which he has personally examined and investigated—for instance, the auriferous debris in the rivers of Veraguas and the isthmuses—I maintain that the concluding from these, that the Cana and vicinity are not worthy of notice, is a *nonsequitur*, rendered more palpable by the very fact of the irregularity of the distribution of gold.

As to the canalisation of the Isthmus of Darien by the Rio Savana, Mr. Hopkins, in comparing the plan with that by the Chagres river, does not take into account the greater safety of the part of the Atlantic coast where the canal would open; nor the fact that the Savana canal would open almost immediately into the Gulf of San Miguel, and a ship, after clearing the gulf a few miles, would be at once in the open Pacific, and thus the tedious and difficult navigation of the great bay of Panama would be saved. The Atlantic entrance of the canal would be opposite Isla de Oro, or Golden Island, in the Ensenada de Caledonia, where Acla was founded by Vasco Minez, where the Scotch colony of New Edinburgh was crushed, and where, according to Lionel Wafer, Dampier, Ringrose, and Sharp, the fleets of the buccaneers used to lie. E. CULLEN, M.D.

Upper Dominick-street, Dublin, June 19.

GOLD MINES OF DARIEN.

SIR,—The only person capable of giving your Paris correspondent of June 8 (who might have given his name more at large, and whose address, "Paris," is rather magniloquent and grand) full information on the subject of his inquiry, is M. Le Roi, a blacksmith, residing in Panama. I called to see M. Le Roi, but he had gone to New York, to bring out a company and mining apparatus to work at Tallecua, at the sources of La Marea, of which he had procured a grant from the Government: he has a partner in Panama. As to Mr. Helert, he was the person who went with Mr. Robert Nelson to see Cana, but they did not reach it: Governor Don Jose de Obaldia told me he was a charlatan. Mr. Nelson registered the *denunciamiento* of the Cerro del Espiritu, Cana, but not having performed the subsequent operations necessary to procure the title, he forfeited his claim.—E. CULLEN, M.D.: *Upper Dominick-street, Dublin, June 19.*

WILSON'S PATENT WIRE ROPES.

SIR,—I beg you will contradict the mis-statement respecting one of my wire ropes, alluded to in your Journal of Saturday last, as it is calculated to mislead the readers of your widely-circulated paper, and evidently intended to injure me; therefore, I trust you will allow me to lay before you a plain statement of facts, which, I think, will convince you that the whole affair is misrepresented. In February last I made, for Messrs. Whaley and Co., one of my patent flat wire ropes, 180 yards long, 1½ in. broad, and $\frac{5}{16}$ths thick; and although the rope was so exceedingly light, in order to give it a severe test, it was put to do the work of a 4½-inch hemp rope, and it is now the opinion of several scientific men (who are, perhaps, better acquainted with the circumstances than your informant can be) that the rope would have done its duty satisfactorily but for an accident, which happened soon after the rope was put to work, and which you informant does not mention, or is not aware of, that so far damaged it, that Mr. Whaley instructed his manager to examine it every day, be-

could had such an accident occurred to one of the ordinary stitched wire ropes, it would have rendered it at once entirely useless; whereas my rope has worked ever since, and will work for some considerable time to come. I may here state that an ordinary stitched wire rope, by another maker, was put upon this same pit, and only worked *three days* before it came to pieces; and I am informed by Messrs. Whaley and Co. that the rope I made was removed because it was the only rope down to that seam; and as the men were in the habit of ascending and descending seven or eight together upon the rope, they very properly concluded upon changing it to another pit, where a hemp rope went to the same mine, so that the men can go up and down upon it, and where the working load will be equal with the size of the rope. Surely your informant must have made a guess at the number of wires the rope is composed of, and also the number broken, as he is very far from being correct in either. Messrs. Whaley are so well satisfied with the principle of my ropes that they ordered another of the same kind, of larger dimensions, consequently better calculated to do the work than the one alluded to. J. B. WILSON.

Haydock Wire Rope-Works, Newton-le-Willows, Lancashire, June 12.

PATENT RIGHT AND PATENT LAW.

SIR,—Some time having elapsed without my challenge being accepted to produce *one* instance in which the public has been injured by the privilege of a patentee, I beg to be permitted to prove my own arguments by the adduction of some instances of the *wrongs* of patentees, and of the vast amount of benefit which I have asserted the public revels in at the price of their *loss*. I think this the more necessary, because it is impossible, had there been any due appreciation of the fact, that the strange attack upon patentees, which I have been resisting, could have been made.

My first instance shall be selected from the history of a metal which has been considered as the key to colonisation in the hands of every nation which has possessed its use; and, therefore, worthy of the particular regard of the wise and beneficient ruler. Not, indeed, by granting *premiums*; for the independence and energy of our national character does not require this stimulus to exertion, but by affording *due protection*, which is the genuine office of Government. Our early monarchs, it is true, offered premiums for every wolf that was destroyed; but the patentee does not ask so much. He only requires his property to be secured in the claws and hide of the beast he has had the dexterity to kill, that the results of courage may not be filched by each dishonest coward, who never faced the toil and danger. Steel is the most valuable form of the metal in question. The records of antiquity show how highly this substance was esteemed. The remote fictions of eastern romance place their potent spirits and enchanters in palaces of burnished steel, as the highest and most dreadful achievement of their power and splendour. We do not reside in palaces of burnished steel; but by the aid of this metal we have so far annihilated space and time that, even in the extravagance of magic fiction, our *real* attainments would have been regarded as chimeras,

"Worse than e'er fables feigned or fear conceived."

What protection, then, does the law of an enlightened age afford to the improvers of this wonder-working metal?

When, at the close of the last century, the genius of Lavorsier and others discriminated those outlines of the combinations of undecompounded substances, on which the superstructure of modern science has since been rapidly erected, the combinations of so important a metal as iron attracted its due share of scientific attention. It was at that time that my father applied the light of the new discoveries to the whole process of manufacture in this country, and laid down the results in terms which made those processes the objects of intelligent and intelligible discourse, which total ignorance had rendered darker by a contradictory jargon. He demonstrated, in the course of these inquiries, that cast-steel, the nature of which was as little understood as it was highly valued, was a mere combination of iron with carbon in small quantity by fusion, and that the intermediate process of conversion was unnecessary to its production. This simple method has, however, not supplanted the old process, because the previous conversion of the bars gives a facility in breaking and sorting into qualities, which outweighs in practice the economy of dispensing with the first operation. Amongst the many points which attracted the notice of scientific men, the superior quality of the iron and steel produced in the north of Europe was one of no small moment. Some foreign chemists advanced the theory, that this excellence was derived from an alloy of manganese, furnished by the native ore; and they professed to prove it by analysis. Considerable doubt existing as to the certainty of this cause, my father, about the year 1814, made experiments on direct alloys of iron and manganese; but his results were no confirmation of the foreign theory. The question remained undecided until about 10 years since, when Mr. J. M. Heath, in the course of extensive investigations into the properties and treatment of iron and steel, detected the true agency of manganese, and made a discovery of such importance, that it can hardly be ranked otherwise than as second to the discovery of steel itself. Some foreign chemists, in examining the properties of manganese, which is a highly oxidisable metal, and cannot retain its metallic form in contact with the atmosphere, had obtained, under some circumstances, minute quantities of a form of the metal, in which this oxidisable tendency was destroyed, and preserving a permanent metallic appearance and lustre. Mr. Heath succeeded in producing this substance in any quantity, by the simple reduction of the oxide of manganese, in contact with a sufficient dose of carbonaceous matter. He ascertained it to be a simple compound of manganese and carbon, precisely similar to that alloy of iron and carbon which is known as cast-iron; and as the latter is termed a carburet of iron, so the former was appropriately described as a carburet of manganese.

This is a scientific fact of very great importance, for until it was ascertained it was not known that any other metal except iron had the capacity of forming an alloy with carbon, and receiving thereby the same altered character in a greatly diminished tendency to oxidation. This fact is worthy some attention in a scientific country; we shall see in the sequel how much appreciation it has received. When cast steel is produced, either by the fusion of blistered steel, or by the direct fusion of iron and carbon, it occurs that in gaining the valuable qualities for which cast-steel is distinguished, *one* important property is lost—viz.: the *capacity for welding*, which belongs to bar-iron or converted steel. Now, Mr. Heath further discovered that the addition of a small proportion of his compound of carbon and manganese in the melting crucible, enabled the cast-steel to retain this property of welding—a discovery of incalculable value and simplicity. It did not appear, by analysis, that this is effected by any alloy of the two metals. The result is, probably, to be attributed to a depurating agency; the strong affinity of manganese for earthy oxides has apparently the effect of removing from the steel foreign matters, which impair its tenacity at high temperatures, and thus enables the steel to bear a welding heat without losing its cohesion—a property which in some late papers, I considered gave iron the peculiar distinction of a welding metal. It is impossible to melt steel with mere oxide of manganese, the strong affinity of the latter for the earths at so high a temperature destroys the melting pots; but this corrosive action is modified by its combination with carbon, and the substances can be retained in the crucible to work out their respective affinities. It had been customary to effect a certain union between the surfaces of cast-steel by sprinkling them with a powdered composition of borax, sal-ammoniac, and other ingredients. But this was done at a temperature far below a true welding heat, and amounted merely to an unstable junction, not an incorporation. This preliminary sketch brings us to the actual details of PATENT LAW, as affecting the PATENT RIGHT of so invaluable a discovery.

Mr. Heath entertained the prevailing distaste, which it is a national discredit should prevail with such just grounds, to obtaining that privilege "of suing and being sued for 14 years," by which a patent right has been defined; and he was only induced to take a patent in his own defence to prevent others from assuming that position, and depriving him of the use of the actual and contemplated results of his own invention. The patent being secured, and the novelty exciting great attention in the steel trade, Mr. Heath appointed a commission agent at Sheffield to introduce the process, and arrange terms for its use. Soon after Mr. Heath, who resided in London, made a further discovery—viz.: that his agent had set up for a steelmaker on his own account, and was offering for sale in London, as his own property, the *improved welding cast-steel*. It is not often that a patent so early establishes its value, or that the suing begins so soon; but this fact proves what I have asserted that, in proportion to the *value of a discovery*, so is the *precariousness of the inventor's title*. Mr. Unwin, persisting in his infringement, an action was brought in the Court of Exchequer. Unfortunately the presiding judge was equally distinguished at the bar and on the bench *in extremes* as a more than usual instance, that the subtlety of the advocate can hardly unite in the same mind with the discrimination of the judge. From the facts I have stated it would scarcely appear possible that any adequate defence could be offered for the invasion of such a patent; but when technical quibbles work upon profound ignorance, substantive justice is easily overruled. The words of Mr. Heath's specification are "for the employment of carburet of manganese in preparing an improved cast-steel." Carburet of manganese, as I have already explained, is produced by fusing oxide of manganese with a due proportion of carbonaceous matter. It is immaterial whether or not the carburet is prepared by a distinct previous process in a separate vessel, or whether its elements of oxide and carbonaceous matter are at once deposited in the same melting-pot with the steel. The results are precisely the same, as every student may be aware who has acquired the first outlines of chemical combination; but as the usual course of trials deals with the surfaces of matter, and not with its properties, the lawyers had not reached even these elements at *nisi prius*. To suit his convenience, Mr. Heath had sent down to his agent sometimes the carburet itself, and sometimes the elements of the carburet, the oxide of manganese mixed with a due proportion of coal tar, being a portable and convenient form for administering a pulverised dose. The treacherous agent did not *himself* substitute the elements of the carburet for the carburet itself. Had he *always* received from the patentee the metallic carburet, and then had the ingenuity to substitute the elements of it in the melting-pot, he would, at least, have effected something towards establishing his own title to a fraud, and there would have been the appearance of a colourable pretext for a legal argument in favour of this fraud; I say for an argument, because under the light of any scientific acquirement whatever, so palpable an evasion could never have affected Mr. Heath's right on the real merit of the invention. But on this difference between the *substances* transmitted by the patentee, and the *substance* named in the specification, the defence of the infringement was grounded. The pirate alleged not only that these substances were *not* carburet of manganese, but that they did not *form* carburet of manganese when introduced into the melting-pot with the steel. The patentee's witnesses were cross-examined to support this allegation, and at the very commencement of the trial, one of the witnesses being entangled into the admission "that he could not get into the melting crucible to see what was going on," Lord Abinger, probably forgetting the present duty in the memory of past triumphs, hurried to make a point, and stopped the case for want of evidence, directing a nonsuit. Hear ye this, men of science, in the enlightened nineteenth century! Improvers of steam-engines, or of fermentation, or of metallurgy, shall have no standing in court, unless their witnesses can prove their standing in a steam-boiler, or a brewing vat, or a furnace, to "see what is going on inside." Hitherto it had been supposed that modern science comprised a vast extent of research and learning, accumulated by the innumerable labours of intelligent men; and that as civil lawyers take their stand upon the authority of precedents and cases, so the laws of science have been accepted upon the authority and experience of previous investigation. The most indefatigable chemist could scarcely, in a lifetime, acquire a personal knowledge of one-hundredth part of the important and collective results upon which decisive principles have been established. Men of science are forced to be content with *their* authorities, as the lawyers are with *theirs*, and their accuracy is tested by the most unerring results, which are sufficient proof in the most delicate examinations, without "getting into the pot to see what is going on." Under such a dictum the brilliant discoveries of Sir Humphry Davy would have had no standing in a court of law; he must have been nonsuited, until he had subjected himself to decomposition by his own battery.

Barred thus by ignorance at the very threshold of the investigation, the patentee waited until a new judge presided in that court; he then obtained a new trial, and set out again to sound the unknown depths of legal lore. Persons so debauched in principle as to attempt the invasion of such a patent right, were, of course, no more scrupulous as to the means of justifying their turpitude. A mass of witnesses were found to swear there was no *novelty* in the invention, that it had been long known and established. Persons, no doubt, might be found to swear they saw Napoleon escape from his campaign in Russia by a locomotive train; but they would be called madmen, and, if they had an interest in what they swore, perjurers, and the jury showed their opinion of the hard oaths of the defendant's witnesses, by finding a verdict for the *plaintiff*. Surely, the patentee is now safe. Were it not for the romance of injustice which attends patent trials, it might be assumed so. But the spirit of invention seems to preside throughout, and busily create new obstacle commensurate with the inventor's merit and originality. A point which I do not understand was reserved for the opinion of the judges, and, under some view taken by Mr. Baron Alderson, that the *intention to defraud* was not established against the defendants, *the plaintiff's verdict was set aside*. I cannot estimate the subtlety of this distinction. The judge has a high character and sound opinions, and unquestionably he must have seen something through the legal microscope which escapes common vision; but I never could learn what it was. If an agent appropriates, for his own emolument, goods which have been entrusted to him, and justifies the appropriation, by disputing the owner's title, I should say the *intention* or *desire* to defraud was the very first thing which was proved on the face of his conduct. The very purpose of the defence was to *defraud* the patentee by a legal quibble, and whether the defence was made out or not, the *motive* of it is a part, respecting which there appears not a shadow of doubt. I am, therefore, in the dark as to the legal mystery which would certainly, as a principle, justify any person in retaining any property which *unintentionally* came into his possession.—DAVID MUSHET: *June* 8.

(*To be concluded in next week's Mining Journal.*)

RAILWAY EXPENDITURE.

SIR,—In treating the national speculation in railways as a matter of business, it is evident thus far there is not a cheering prospect for the proprietors. On the old coach-road system, the proprietors of waggons and coaches being the principals, for their own interests knew and studied every means of making their concerns profitable. Railroads being worked by companies, the proprietors have no means of ascertaining the practical points in working them, and the directors having enough to do to regulate and superintend the financial business, the really essential part of the undertaking is governed by a system, whether returns be favourable or unfavourable to the general body.

It becomes, then, a matter of importance that the proprietors of railways, like the proprietors of other concerns, should see to the principal point, and direct the working of their establishments. Lest it may be considered presumptive to make statements, and to review the business of railways, let us look one leading item of expenditure full in the face, without touching upon any other. By public statements of the company, it appears that the London and North-Western Railway has 532 locomotive engines. Each of them cost 1500*l.* = 798,000*l.*, which, with 10 per cent. for repairs for four years, will be equal to 798,000*l.* + 319,200*l.* = 1,127,200*l.*, which will take 281,800*l.* per annum from the *profits* to renew and maintain, as that is about the duration of steam locomotives. This gigantic expenditure should be looked at fearfully, and the question ought to be asked—are the returns, or can the profits from traffic ever meet this item, with all the other expenses incidental thereto? Four hundred compressed-air locomotives would do the same duty. Putting them at 1000*l.* each (taking no account of their vastly extended durability), the account will stand thus: 400 × 1000*l.* + 80,000*l.* (repairs at 5 per cent. for four years) = 480,000*l.* ÷ 4 = 120,000*l.*, instead of 281,800*l.* per annum. With such an economy of capital and profits at command, will railway companies persist in so destructive a system?—A. PARSEY: *June* 19.

A COLLIERY ON FIRE—ACCIDENT.

SIR,—The misfortune to the proprietors of the Darley Main Colliery by the coal bed taking fire, mentioned in your paper of the 15th instant, caused "from allowing the ashes in the engine flues, which are in the cuttings, to accumulate," might be prevented from occurring again by the use of compressed-air engines, which would not only be a sure protection against such a calamity, but would serve in blowing off atmospheric air to ventilate the mine. Steam-engines not only blow off vapour and steam, but generate electrical and gaseous influences, which, amalgamating with the confined air, and affecting its temperature, renders the whole accumulation dangerous and unwholesome, as well as more difficult and expensive to blow off or ventilate than a mine would be with only its own creations, and the adoption of well regulated currents of atmospheric air, sent down from the surface, where the power can be generated and communicated to the air engines below, so as to study the health of the workmen, their safety, and the security of the proprietors against accidents of the kind, at no material (if any) additional cost. A CONSTANT READER.

June 19.

SINGULAR EFFECT OF BLOWS ON IRON SHELLS.

SIR,—The shells which form the subject of the following remarks were fired from her Majesty's ship, *Excellent*, in Portsmouth harbour, and the fragments afterwards recovered from the mud by men who help out their living by searching for the shot and shells discharged from that vessel. The diameter of the shells in question is 8 in., and they have been burst by the charge of powder in them.

Fig. 1.

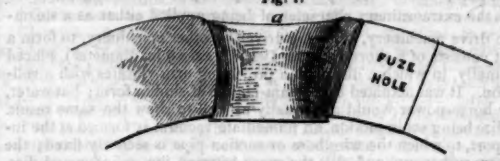


Fig. 2.

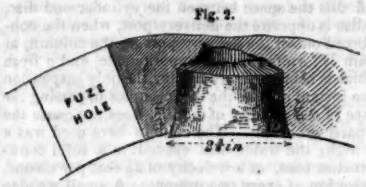


Fig. 3.

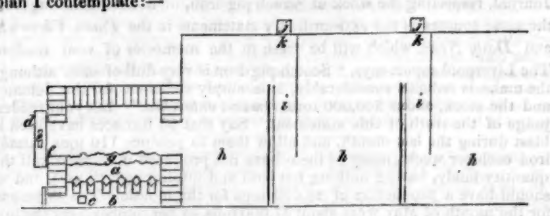
Fig. 1 represents a fragment of the shell, that appears to have received the severest blow, and, by the shape of the indentation upon it, it would appear to have struck upon another shell, or shot, or other round body. In the centre of the hollow, *a*, a portion of the metal has been completely separated from the rest of the shell, and assumed the form of a bolt, or rivet, and has the appearance of having been rivetted at each end; but the perfect smoothness on the inside, and the impossibility of performing such an operation, shows that it could not have arisen from any other cause than the concussion on striking the object with which it came in contact, after it was discharged from the gun.

The effect on another shell, delineated in *fig.* 2, shows that the formation of these bolts arises entirely from the blow received on striking a hard substance after the discharge, and not from any peculiarity in the manufacture of the shell; for in this instance the blow did not form a complete bolt, or rivet, but only a partial one, commencing from the inner surface. *Fig.* 3 is another view of the bolt in *fig.* 2, which is not quite circular, but rather oval, as will be seen by the dimensions given. The diameter of the perfectly-formed bolt (*fig.* 1) at the centre is exactly the thickness of the metal of the shell, and that of the incomplete bolt is rather more.—J. J. LAKE: *Portsmouth, June* 13.

ON THE TREATMENT OF SULPHURET OF ZINC.

SIR,—I sent a few hasty remarks on the treatment of sulphurets, which appear in last week's *Mining Journal*. I take the liberty of pointing out a little mistake; I stated in my letter, that I was devising the means of recovering sulphur in copper smelting, instead of which you have it copper sheathing; this is likely to puzzle some of your readers.

In my letter of the 11th instant I did not mention the treatment of sulphuret of zinc, reserving it for another communication, when more at leisure. In preparing sulphuric acid from blende, or black jack, pure oxide of zinc may also be formed. This I regard as valuable for a pigment, more particularly for iron-work and making joints, instead of white lead. The following rough sketch and brief explanation will give some idea of the plan I contemplate:—



Suppose *a* to represent a bed of anthracite coal, resting upon one of my water grates, set in mason work, having a closed ash-pit, *b*, underneath, into which a blast is introduced at *c*; *d* is a double fire door, or iron box, revolving upon a branch pipe from the blast, which enters at the side, *e*, and is distributed through holes in the inner plate, *f*; a mixture of ore and small anthracite coal, *g*, is to be thrown on the fire, *a*, from time to time. By the application of moderate heat, the zinc, sulphur, and arsenic, if any present, will be volatilised; and meeting air from the fire door, *d*, *e*, *f*, will take up oxygen, and be driven on through the ascending and descending chambers, *h*, *h*, *h*, *i*, *i*; above the latter, *i*, *i*, more air is to be blown in through boxes, *j*, *j*, reaching across the chambers, having the lower side perforated with holes, *k*, *k*, to distribute and mingle the air; this will complete the oxidation—cooling and condensing the metals. The sulphurous acid passing on is then to be treated with heated air, and afterwards brought into contact with steam or water, in a suitable chamber, to condense into liquid sulphuric acid.

Oxide of arsenic being volatile, while oxide of zinc is not so, these two may be separated most effectually by heat in a reverberatory furnace, worked by an anthracite fire and my water grate. There is no smoke, or soot, present, and the arrangement of the fire allows an ample supply of oxygen to be thrown in over it, to keep the zinc fully oxidised; while the arsenic passes off, and may be condensed and collected in any suitable flue, or chamber. Should the reduction of the oxide of zinc be desired, this may be effected most conveniently on one of my grates, set as the hearth of a reverberatory furnace, to be heated by a fire from another grate passing over it. This may be either an anthracite fire, worked by a blast, or an ordinary fire by the draught of a chimney—the water grate being covered with a bed of anthracite coal, upon which a mixture of oxide of zinc, and any carbonaceous matter, is to be thrown. By the application of moderate heat the oxides will be reduced, and pass into metallic zinc in fusion, which, by its density, will filter through the bed of anthracite, and drop into a cool atmosphere below; after which it may be re-melted, and cast into the requisite form. When an anthracite fire, by blast, is used for reducing oxides, no air should be blown in over the fire.

June 17. T. H. LEIGHTON.

SULPHUR FROM COPPER AND IRON PYRITES.

SIR,—Before replying to Mr. Leighton's letter, which appeared your last Journal, I would correct a technical error into which he has fallen, and which rendered his communication somewhat unintelligible. I refer to his employing the word 'slag," where he evidently means regulus, or coarse metal. He speaks of "extracting sulphur from slag," which was never known to contain above a trace, and of "smelting copper without the production of slag." His experience should certainly have prevented him attributing such an absurdity to any one. The object of his letter is to direct attention to the production of sulphur from copper and iron pyrites. What has this to do with his mis-statement in reference to the copper works on Bow Common? I confess I am at a loss to comprehend Mr. Leighton's meaning, perhaps as much from the nature of his assertions, as from the profundity of the logic he employs to account for so large and valuable an amount of copper rubbish; so far, however, as I can ascertain his meaning, I unhesitatingly give the most unqualified contradiction to his statement. The subject of Mr. Leighton's letter is one well worthy of attention, provided it could be carried into practice with advantage. Copper smelters are not so much in their own light as he supposes, in paying so little attention to the extraction of sulphur from sulphuret ores; and, were they so disposed, they would employ a different plan to the one suggested. They know that it could be more conveniently obtained from the calcination of the ore than from slag or regulus, for in the calcination of the ore a large amount of the vapour of sulphur is disengaged, and, even under existing arrangements, forms a considerable sublimate in the culverts of copper works, where neither hot irons nor heated gases are required for its decomposition—it exists already in the state of sulphur. Now, the gases produced from the calcination or roasting of regulus, are principally

sulphurous acid and vapour of sulphuric acid, both of which are likewise produced in the calcination of the ore. I doubt the propriety of employing iron for effecting the decomposition of sulphurous acid, for the sulphur formed will re-act upon the iron, to form protosulphuret of iron, at the heat necessary for the decomposition. Further, by constructing arrangements for the reception of sulphur and the decomposition of sulphurous acid of copper works, the smelter knows that his progress otherwise is retarded; by the enlargement of his flues and culverts, the currents of heated air in them are very materially deranged, and thus affect the furnace operations.

A word for Mr. Leighton's method of generating sulphuretted hydrogen, ammonia, and sulphur. I confess that the means by which he obtains sulphuretted hydrogen, and subsequently ammonia and sulphur, are interesting. Granting that sulphuretted hydrogen may, in small quantities, be obtained by passing vapour of water and air over metallic sulphurets, cold water thrown on protosulphuret of iron in a heated state produces the same effect, as every furnacemen, who moistens his cinders, knows. But how are the sulphur and ammonia obtained from this sulphuretted hydrogen? Is it that the hydrogen of the gas attaches itself to the nitrogen of the air to form ammonia, and the sulphur is liberated? This is evidently Mr. Leighton's theory, Oppose to it the following, and apply the known laws of chemistry to both. The sulphur, as in the former case, is liberated, and the hydrogen of the compound gas combines with the oxygen of the air to form water. I believe that such a decomposition is continually going on in nature, in and about volcanoes.

Contrary to the experience of the manufacturer, Mr. Leighton is of opinion that, by means of a blast, he could render the whole of the sulphur in iron pyrites available for the production of sulphuric acid. Does he not know that, even with a blast, pyrites yields only part of its sulphur?—there still remains a sulphuret of iron, with a less proportion of sulphur than the original pyrites; the blast will keep it in a state of fusion, but will not disengage the remaining sulphur.

I shall patiently wait for Mr. Leighton's entirely new system of copper smelting; meantime, I am convinced he would be doing himself a service by acquiring a more intimate acquaintance with existing systems.

Swansea, June 19. A CALCINER.

MINE INSPECTION.

SIR,—It would add considerably to the value, as well as to the interest, of Mr. David Mushet's communications, were he to read attentively the articles which he honours by his strictures. Had he done so before writing the letter on mine inspection, which appeared in your Journal of the 15th inst., he would have seen that the subject of insurance was never mentioned in mine of the 27th May, and that it was wholly confined to mine inspection. By omitting this ordinary, but to him it may be distasteful, practice, he has completely thrown away a long paragraph of historic lore. This is a pity, as it destroys the effect of that which would otherwise have been amusing, and strongly reminds us of the chivalrous exploits of the Knight de la Mancha, who was indebted to his fertile imagination for the enemies and castles upon which he lavishly expended his valour.

Mr. Mushet appears disappointed that "the particulars which *he desired*, as to the plan of an inspection," were not given in my letter of the 27th May. With every possible disposition to obey Mr. Mushet's "desires" or commands, the expediency of repeating what has been so often published is very questionable; nor is it, by any means, certain that Mr. Mushet would be benefitted by its republication. He very properly says, that "he is not aware that a reference from myself to myself is conclusive." Why, then, does he "desire" such a reference? We are told the Government plan of inspection will very shortly be introduced into the House of Commons; whatever this may be, it is the only plan at all likely to be carried into execution; it will be, therefore, only a waste of time to discuss private opinions at such a juncture.

Mr. Mushet doubts if Mr. G. Elliot is a supporter of mine inspection, and if so, he adds, I have greatly misconceived his evidence. The following extracts from the report of the Lords' committee, leave no doubt as to Mr. Mushet's misconception of the evidence, and afford another proof of the cursory habit of reading, which he has unfortunately contracted:—

"3126. Have you ever turned in your mind the question of the expediency of an inspection by Government?—Yes; that is a subject which I have also considered, seeing that it was about to come; we do not seem to be very fond of it.

"3127. What would be your view of that question?—I should not object to its being done, since I *believe that it would have a good effect* upon other counties than ours; if it would have the effect of bringing the other places, where we hear of so many frightful accidents, up to the level of our condition, it *would tend very much indeed to lessen the loss of human life* which we are daily hearing of.

"3128. Is it your opinion, then, that Government might, by a judicious system of inspection, effect good in that respect?—I *entertain a hope* that they would; *I think so*, if they got some good sound practical men to superintend occasionally."

Mr. Mushet charges me with having stated that the extinction of danger, and the appointment of inspectors, would be synonymous events. Now, Sir, I most unequivocally deny that I ever stated any such absurdity; and, if Mr. Mushet wishes his future statements to be believed, it is to be hoped that he will have the manliness either to prove, or retract, this imputation.

Mr. Mushet is mistaken, if he supposes that I recommend any particular system of ventilation, to the exclusion of every other. The furnace, high-pressure steam, Struvé's, and Brunton's, have all been proved effective under particular circumstances; but before any of these plans can be prudently recommended for *universal* adoption, it is desirable that we should have more experience of their respective merits, so as to be enabled to decide on their comparative economy and efficiency. As regards Mr. Struvé's machine, I merely recorded my observations of its effects and operation in your columns, and expressed the favourable opinions I entertained of it. Although placed under many disadvantageous circumstances, it continues to give great satisfaction at Eaglesbush. Were it employed in a larger colliery, its powers would, I think, be more developed, and its comparative value more correctly ascertained.

Mr. Mushet appears dissatisfied with the names given in my last,—there is another and a recent authority which I will venture upon giving, in the hope that it will have a more favourable effect. In your Journal of the 9th Feb. Mr. Mushet says—"I make no doubt Mr. Blackwell's report, as a practical collier, will contain interesting facts, very different to ordinary reports." Mr. Blackwell's report has been published, and the following is an extract from it:—"In conclusion, it must be stated, as the result of the investigations I have made, that, although many of the mines in the country are conducted with all the precautions against accident which experience can suggest, or the expenditure of capital afford, yet that *there are numerous others in which the system and arrangements are defective*; and further, that a *great part of the grievous loss of life which does occur would be prevented*, if due skill and proper means were employed to remove those defects in *existing conditions*, which can be clearly recognised. In addition to the loss of life from accidents of a violent nature, the neglect which *too frequently occurs* (especially in districts and mines in which little or no inflammable gas is found), to *provide a sufficient* supply of pure air, is productive of *much disease* among the mining population. This evil admits of easy remedy." Thus, so far from Mr. Blackwell's report being "very different to ordinary reports," it strongly corroborates them; and the views taken by Mr. Blackwell of the present state of our mines is confirmed by the report of Professor Phillips.

After the very able reviews of these interesting and valuable documents which have appeared in your Journal, it is unnecessary to say more than that they are well worth a careful perusal, especially by those who think, like Mr. Mushet, that a Government inspection of mines will be an evil. Mr. Mushet asserts that inspection is advocated from selfish motives; and, in making such an assertion, injures his own character more than any advantage he may gain in controversy can compensate him for. There is a taste in morals as in other things; and if it be Mr. Mushet's to disregard the usual courtesies of civilised society, it is on his own account to be deeply regretted. Whether he will impute such motives to the authors of these two interesting reports, we have yet to learn. Be this as it may, he must admit, unless, indeed, he repudiates the authority of a "Practical Collier," upon whom he has bestowed his commendations, that "a grievous loss of life does occur" in our mines, which "would be prevented if proper means were employed." Because "the sound heads" of Turgot and Adam Smith recognised the *principle* as a very bad one, is this enormous evil to remain unredressed? Are no attempts to be made to diminish it, notwithstanding we are told that it is quite possible to do so? Whatever "the soundest heads" may say as to "the principle," it is of infinitely less importance than the fact that, notwithstanding all that has been said and done for the last five years, the loss of life has been increased rather than diminished. With this *fact* before us, are no attempts to be made to save life?—are no remedies to be tried, because Turgot, Adam Smith, and Mr. David Mushet say the *principle* is very bad? Whatever these "sound heads" may think and say of the principle, it has been recognised and extensively acted on by the British Parliament, with very beneficial results. If an official inspection be deemed an inadequate remedy, why do its opponents not propose something better and more efficient? Things cannot remain as they are,—something must be done; and, if "the soundest heads" will not give us a better plan, we must be content with such a measure of redress as can be devised and obtained.

Neath, June 20. J. RICHARDSON, C.E.

In the Court of Exchequer recently, the Court gave judgment in the case of Ambergate Company *v.* Couthar, wherein the defendant was sued for non-payment of calls, including the first instalment of the last call due to 6th of April—the second instalment of which was not then due, and substantially decided that, when a railway company is empowered to make "a call" for a specific sum, it cannot require payment in parts at different times, as this would be making "calls," and not "one call." The rule to reduce the damages assessed in an action to recover the calls by striking out the amount of the second instalment was made absolute. The operation of this judgment will remove considerable grounds of complaint on the part of shareholders, who have heretofore, when a company has thought fit to make a call, by one or more instalments (the last frequently falling due many months after the first), been obliged to pay up every instalment long before due, before a transfer of their shares could be effected.

DIVERSION OF A WATER-COURSE.—In the Vice-Chancellor's Court, on Thursday, Sir Launcelot Shadwell delivered judgment in the cause "Adshead *v.* Chapman." On the 20th April, a motion was made for an injunction to restrain the diverting of a watercourse which was used by the plaintiff, and the Court granted the *interim* injunction on the defendant's undertaking. A motion was then made for the injunction, and was argued during the latter portion of the last term. It appeared that the plaintiff owned a silk-dyeing mill near Macclesfield, which was worked by a stream proceeding from certain ancient coal mines, which had not been worked for near a century, and in which a large body of water had collected. The plaintiff deduced his title from the year 1788, the actual conveyance to him having taken place in 1847; and it was stated in the affidavits that in 1816-17 one Paintry constructed a dam in the sop, or loose, constituting the watercourse in question, with a stone tunnel for the purpose of raising the level of the water, which act having taken place more than 30 years ago was, it was alleged, sufficient to make a good title to the quiet enjoyment of the water, which was of so soft a quality as to be particularly adapted to the dyeing of the silk fabrics. The defendant had obtained a lease for 21 years of mines in the immediate neighbourhood, and was constructing a sop, or loose, in the direction of the mines in question, and the loose belonging to, and used by, plaintiff; and the present injunction was asked for upon the length of enjoyment, and on the authority of the cases of "Major *v.* Chadwick" (11, Adolph. and Ellis, 571), and "Mason *v.* Hill" (5 Barn. and Ad.) Against the motion it was argued that, unless in the absence of conclusive evidence of the plaintiff's title at law, the Court would not grant the injunction. It was a common practice in coal mines that an upper portion of the coal might be worked, and the first portion worked remain, as it were, abandoned or unworked for many years, but that was no reason why the title to the mines should be defective. The Enclosure Act, which applied to these lands, also showed that the plaintiff had not the exclusive right to the water.—His Honour, after observing that a case referred to in the Exchequer, he had been informed by Mr. Baron Rolfe had never been in fact decided, said that it was curious to see how the English law continued the principle of the Roman, and what trouble had been taken to prevent a sliding from the general rule, as between the subterraneous and ripareous parties; but, with regard to the most extraordinary circumstances in the present case, he really thought he was not at liberty to grant the injunction. Lord Cottenham, in the case of "Haynes *v.* Taylor" and other cases, had acted upon the principle, that in a case where the Court ought not, perhaps, to interfere simply, it should do so by injunction, for the purpose of removing obstacles to the trial of the question. The only thing that he should do in this case was not to make the order for the injunction, and that the parties should be at liberty, according to a suggestion which had been made, to try the question upon admissions to be arranged between them.

IMPORTANT MINING CASE—PHILLPOTTS AND PLANTS *v.* EVERS AND CO.—This action was brought, owing to the defendants (who, like the plaintiffs, are lessees under Lord Ward) driving a headway through a rib of coal belonging to Lord Ward, and causing a large quantity of water to flow into the plaintiffs' mine, and thus drowning them out, the mines being contiguous. The case was in part heard at the last Lent Assizes at Worcester, when an objection was raised by Baron Platt, who stated that the evidence on the trial did not support the declaration, and, therefore, nonsuited the plaintiffs. They have since applied to the Court of Queen's Bench for a rule *nisi* to set aside the nonsuit. The case came on for argument this term. The counsel for the plaintiffs were Mr. Whateley, Q.C., and Mr. Selfe; for the defendants Mr. Alexander and Mr. Keating. After a very lengthened argument on both sides, the judges agreed to look over the evidence taken at the trial at Worcester, and on Saturday Lord Campbell gave judgment. He stated the majority of the Court were of opinion there should be a new trial. The rule was, therefore, made absolute, with power, if the plaintiffs thought proper, to amend the declaration. The plaintiffs' mines, it is stated, are still under water.—*Wolverhampton Chronicle.*

LAMPLOUGH'S SANITARY IMPROVEMENTS.—Mr. Lamplough's invention (the abstract of the specification of whose patent we gave in our Journal of the 1st of June) is one of the highest importance, as it promises to secure to the inhabitants of this modern Babylon, and of other towns, that all-important, necessary, and most inestimable blessing—pure water; and, further, Mr. Lamplough proposes the extension of his improvements to the drainage and irrigation of land. In order to obtain water from a source that shall the better ensure its value, as regards purity, and be as little limited as possible, it is very often necessary to seek for that source at a considerable distance from the point to be supplied, especially in this leviathan of cities; and, in conveying this supply, it cannot fail to become deteriorated in quality by its transit through the soil from land springs and land washings; and as the ducts conveying it are merely open channels, or water-courses, it receives a tolerable share of refuse and extraneous matter in its progress. Now, Mr. Lamplough's plan being to use a system of syphon and other pipes, it is evident that, if the source of supply is pure, the water being conveyed in pipes admits of no injury from the land springs, or, what is worse, the land washings. The latter is poisonous in proportion to the extent of the soil cultivated; for as it increases in nitrates (the food of plants), it increases in unfitness as the medium of conveyance for water designed to be used in culinary purposes, or to be drank by man, or even the inferior animals. Any one who remembers the effect that drinking impure water had on numerous persons at Lambeth during the late cholera epidemic, will perceive the high importance of pure water. It was distinctly proved by evidence that, immediately after drinking, they were seized with all the worst forms of that disease. Had the water been obtained from a pure source, and conveyed to its destination by the means now proposed, it would, in all probability, have been secured from contamination in its transit, and the liability to atmospheric poison, on approaching the *purlieus* of this monstrously-overgrown, badly-drained, metropolis. As it is proposed to make use of the sides of railways and canals for laying down this aqueduct, the advantages to railways and canals adopting it will be considerable; and, as the cost of water to some companies is not an inconsiderable sum, this might be, in many instances, not only entirely done away with, but a source of profit to be secured in addition.

RAILWAY ACCIDENTS AND MEDICAL AID.—A measure has been brought into the House of Commons to provide medical assistance in cases of accidents on railways. The preamble of the bill recites, that whereas no action is now maintainable against a railway company by a surgeon, called in by the servant of a railway company to render assistance to a passenger who has been accidentally injured, it is right and expedient that often times the company in such case should be answerable for the services of the surgeon called in. It then proposes to enact that the servants of railway companies may call in surgeons in case of accident—the acts of the servant to bind the railway company, until notice is given to the medical attendant to the contrary. A railway company may recover expenses from other railway companies in fault, or from a passenger in fault; and in the case of a "pauper passenger," the company is to have a legal right to recover from the overseers of the parish in which the accident happened.

WEST CORNWALL RAILWAY.—The committee on this company's bill for a branch at Hayle, modifications of agreement with the Hayle shareholders, and for alteration of gauge, have declared the preamble proved.

COMMERCIAL GAS AND POPLAR GASLIGHT COMPANIES.—The committee report that the standing orders in these cases have been complied with.

THE NIZAM'S DIAMOND.—Some 15 or 18 years ago, a native child was seen playing with a brilliant stone. Its nature was shrewdly guessed at by a passer by, and eight annas were offered for it. The amount excited suspicion, and ultimately led to the discovery of its real value. This stone is the Nizam's diamond, of which most people have heard. It is not now quite entire as originally found—a piece having been chipped off, which, after passing through several hands, was purchased by a native banker for 70,000 rupees. The length of the stone in its present state is, according to the authority of Capt. Fitzgerald, Bengal Artillery, attached to the Nizam's service, 2·48 in.; its greatest breadth is 1·35 in.; and its average thickness, 0·92 in. An exact model, cast in glass from the leaden one, which was exhibited a short time since before the Asiatic Society, was found to weigh 1164·50 grains—its specific gravity being 8·70.

HISTORY AND MANUFACTURE OF GUNPOWDER.—No. IX.

BY JOHN JOSEPH LAKE, OF THE ORDNANCE DEPARTMENT.

The anticipations that were formed of gun-cotton superseding gunpowder led to many competitors entering the field immediately after Schönbein's discovery was made public; of these the one that appears to have come the nearest to the learned professor was Mr. Thomas Taylor, of London, who gave the following instructions for its preparation in the *Times* of 17th and 26th of October, 1846:—"Mix in any convenient glass vessel 1½ oz., by measure, of nitric acid (specific gravity 1·45 to 1·50), with an equal quantity of sulphuric acid (specific gravity 1·80). When the mixture has cooled, place 100 grains of fine cotton wool in a Wedgwood mortar, pour the acid over it, and, with a glass rod, imbue the cotton as quickly as possible with the acid. As soon as the cotton is completely saturated, pour off the acid, and, with the aid of a pestle, quickly squeeze out as much of the acid as possible; throw the mass into a basinful of water, and thoroughly wash it, either in successive portions of water, or underneath a tap, until the cotton has not the slightest acid taste. Finally, squeeze it in a linen cloth, and dry it in a water bath."

This preparation is quite as powerful as that of M. Schönbein. Dr. Otto, Professor of Chemistry at Brunswick, and M. Böttgee, of Frankfort, published instructions for preparing explosive cottons, and M. Morel, of Paris, took out a patent for one in France.

The probability of gun-cotton superseding gundowder in war is now, however, rather remote, for although it was tried, and with much satisfaction, by the British troops during the late war in the Punjaub, yet there are so many serious drawbacks against it, that it is very questionable whether it will ever be generally adopted; but notwithstanding occasions may arise in which the discovery may prove of the greatest importance, and it would be very desirable to keep a stock of acids necessary for its preparation in places likely to be exposed to siege. In such a case, it would be found a most useful provision should the store of gunpowder become exhausted. Gun-cotton absorbs moisture with great rapidity. If exposed to a moist atmosphere, it will in a few hours take up nearly its own weight of water; but, unlike gunpowder, it does not suffer permanent injury by becoming wet, for, on being dried, it is as fit for use as ever.

Pyroxyline may be made to explode by percussion, by previously preparing it for the purpose in a solution of chlorate of potash. Any colour can also be given to the flame, by submitting it to the action of the same salt as is required to produce a like colour in gunpowder.

If good gunpowder be objectionable for blasting, gun-cotton must be still more so, since it explodes with greater suddenness and rapidity, and is, therefore, less calculated to give the heave required by the miner. The quickness of its combustion is, in reality, one objection to the employment of it in fire-arms, and the proportion given by Mr. R. Taylor at a meeting of the Geographical Society at Penzance, as a mining charge is one-fourth that of powder; therefore, if good powder be too strong, pyroxyline must be more so. In quarrying stones for buildings, it may be desirable to dislodge as large masses of stone as possible without fracture; but where the stone has merely to be displaced, to make room for the progress of the workmen, the more it is fractured and reduced in size the better, and, therefore, the more violent the explosive agent the better in the latter case. Theory is even contrary to the use of bad explosive compounds in mines; for in the case of the musket barrel burst by the explosion of fulminating silver, the small distance the ball was projected shows that, by using compounds that explode suddenly, the tamping is less likely to be driven out—the strength of the powder being spent before the inertia of the materials composing the tamping is overcome; an effect that is more completely produced by driving a barrel-shaped plug of iron, with a groove in the side for the fuse, into the top of the hole. A long cord, attached to a ring at the top of the plug, will enable the plug to be recovered, should it by chance be forced out.

M. Combes observing that the products of combustion of pyroxyline, according to the analysis published by Pelouse, were 46 parts carbonic oxide, 1 carbonic acid, 10 nitrogen, and 32 steam, or vapour of water, proposed to effect the complete combustion of the carbonic oxide, and thus improve the compound for blasting rocks by adding 80 parts powdered chlorate of potash, well dried, to 100 parts pyroxyline, prepared from well carded cotton. He mixed the two roughly in the hand, and inclosed them in cartridges, made of common grey paper. The effects were very powerful; but the dangerous nature of the potash salt, and the facility with which it explodes by percussion, forbid it being used for mining. M. Combes, therefore, tried the nitrates of potash and soda, in lieu of the chlorate; and to 100 parts of pyroxyline added 80 parts by weight of nitrate of potash, or 70 of nitrate of soda. The peculiarities of these mixtures, as developed in a long series of experiments, appear to be absence of smoke and smell after explosion, and of inflammable gases, as carbonic oxide, from the fissures of the rocks; and almost as good an effect was produced as when chlorate of potash was employed. The above mixture of pyroxyline and saltpetre produces as good a result as three times its weight of good gunpowder, and four times its weight of ordinary blasting powder. The addition of either of the salts in the proportions above mentioned, does not change the volume of the gases resulting from the combustion of the pyroxyline. The only differences are, that the carbonic oxide is converted into carbonic acid—part of which combines with the base of the nitrate when this kind of salt is employed, and is replaced by its volume of nitrogen. The chief improvement in the effect is due to the degree of temperature produced by the combustion of the mixture.

It may not be out of place here to notice the following method adopted at Marseilles for blasting calcareous rocks, and giving the greatest possible effect to the charge of powder. After the rock has been pierced by a jumper to the depth required, a copper pipe is introduced, the size of the bore—the end being pressed down to the bottom of the hole, and any space round the outside of the pipe, at the top of the hole, closed up tight with clay. Into this copper pipe a small leaden pipe, shaped like a funnel at top, is inserted, which also reaches to the bottom of the hole. Dilute nitric acid is now poured through the funnel and lead pipe, which decomposes the limestone at bottom, and forms a hollow chamber for the reception of the powder. So long as the acid is poured in, the action will continue; and the size of the internal chamber has to be judged by the quantity of matter delivered through a pipe, at the side of the copper pipe, near the top, and which matter rises between the outside of the leaden pipe, and the inside of the copper one. The chamber dries rapidly after the introduction of the acid solution has been discontinued, when the charge of powder can be introduced. MM. Lerme, Brothers, who first brought this plan into operation, effected a very large saving in a contract by it.—*Portsmouth, June* 11.

THE ELECTRIC TELEGRAPH.—A few weeks ago we gave our readers some account of Mr. John Wilkes's plan for an electric telegraph between New York and Europe. We have now to add, on the authority of the *Deutsche Reforme* and other German papers, some account of the progress which is being made in thus belting the earth in the North of Europe. The importance of rapid communication of intelligence in such times as we have recently passed through has made itself deeply felt in Russia. Not content with connecting St. Petersburgh with Moscow, Warsaw, and Odessa—the Baltic with the Black Sea—the Emperor Nicholas has established a convention with Prussia and Austria, in virtue of which lines are now in progress of being laid down between the Russian capital and Berlin, by way of Posen, and between the same capital and Vienna, by way of Warsaw and Cracow. The Brandenburgh Ministry resolved some months ago to connect Berlin with the great cities on all the frontiers of Prussia. In Belgium the lines are continuous. The connection between London and the Continent is nearly completed by the submarine wires now being laid down between Dover and Calais, so that at no very great distance of time it will be possible for a person to repair to the Telegraph office at Charing Cross, and not only to transmit messages in a few minutes to St. Petersburgh, Vienna, or Odessa, but even to New York and to the various cities of the North American continent! This new agency has produced many curious changes in the relative value of position. For example, the Manchester and Glasgow merchant had formerly need of an agency in London, because it was the first point at which commercial intelligence arrived. Now important despatches are sent forward by telegraph, and are known as early in the northern cities as in London. When the great lines referred to shall be completed, a message may be sent from London to the Black Sea or to the Hudson River, and an answer obtained, in as short a time as one would occupy in riding from our office to St. John's Wood and back! While writing on this subject, we may add, that both in Prussia and in Austria a trial is being made of the underground telegraph. The experience of our own country has shown that the wires above are not subject to much risk of derangement; wanton offences against them have been very rare, but it is well that we should have a trial of both plans.—[We quote the foregoing from the *Athenæum*, but we have good reason to believe that the information it contains, with reference to sinking the wires across the British Channel, is altogether premature, and, in our opinion, emanates from a party who is totally ignorant of the progress of the works.]

AMSTERDAM WATER-WORKS COMPANY,—Established as a *Société Anonyme*—thus limiting the responsibility of the shareholders to the amount subscribed, in conformity with the laws of Holland.

Capital 2,200,000 guilders, or £183,333, in 8800 shares, of 250 guilders each, or £20 16s. 8d.

PROVISIONAL COMMITTEE AT AMSTERDAM.

JACOB VAN LENNEP, Esq., LL.D., &c., Keyzersgracht, 637.
J. S. KLEINPENNING, Esq., Heerengracht, 581.
H. C. CRUYS, Esq., Keyzersgracht, 724.
K. KOOPMANS, Esq., Singel, 329.
W. VAN DER VLIET, Esq., LL.D., Heerengracht, 73.
J. EDWARD STUMPFF, Esq., Heerengracht, 16.
H. M. G. VAN ROSSUM, Esq., Keyzersgracht, 435.

BANKERS.

The Union Bank of London; Associatie Cassa, at Amsterdam.

CIVIL ENGINEER.

William Tierney Clark, Esq., F.R.S., Engineer to the West Middlesex Water-Works.
CONCESSIONER—C. D. Vaillant, Esq.
ACTING ENGINEER—Bland William Croker, Esq.

SOLICITORS.

Hale, Boys, and Austin, No. 6, Ely-place, Holborn, London.

ADVOCATE OF THE COMPANY.

J. W. Van der Meer de Wys, Esq., LL.D., Singel, 381, Amsterdam.

SECRETARY.

C. E. Vaillant, Esq., LL.D., Amsterdam.

AGENTS IN LONDON.

Messrs. Kops, Coussmaker, and Guitard, No. 26, Birchin-lane.
John Adrian Meyer, Esq., 30, Great St. Helen's.

This company is formed for the purpose of supplying the important city of Amsterdam with water, to be conveyed from the Sand Hills at Overveen, near Haarlem, that at present consumed, by a population of more than 200,000 souls, being of the most unwholesome description, and obtainable only at a cost far exceeding the price which it is proposed to charge for water of pure and excellent quality.

The remunerative character of similar undertakings is proverbial, and annual subscriptions from influential inhabitants to the amount of £8000 are already guaranteed to the company. This alone is equal to a return of 5 per cent. upon the capital; the ultimate profit, however, may be safely calculated at 16 per cent.

Two-thirds of the required capital is already subscribed for by responsible parties, and the requisite concession has been granted by the King of Holland.

The estimates for the works have been carefully prepared, under the superintendence of the eminent engineer, Mr. William Tierney Clark.

Capitalists in England desirous of becoming shareholders may obtain a detailed prospectus of the undertaking, upon application to the above-named agents.

London, 21st June, 1850.

BOTTLE HILL TIN AND COPPER MINE.

Capital £4000, in 2000 shares, of £2 each.
No further call will be required, and no liabilities.
CONDUCTED ON THE COST-BOOK SYSTEM, which limits the liabilities of the shareholders to the amount subscribed.

BANKERS.

Royal British Bank, London; Devon and Cornwall Banking Co., Plymouth & Tavistock.

SECRETARY.

Emanuel Brown, Esq., 16, Fenchurch-street, London.

A meeting of shareholders will shortly be held, of which due notice will be given, when the committee of management and other officers will be elected.

PROSPECTUS.

Bottle Hill Tin and Copper Mine is situate in the parish of Plympton St. Mary, in the county of Devon, about seven miles from Plymouth, and two miles from the Plymouth station of the South Devon Railway. The sett is very extensive, being about one mile in length on the course of the lodes east and west, of which there are six in number, and about a half a mile from north to south. The north part of this sett is composed of granite, of a character congenial for mineral deposits—the old workings being in killas, or clay-slate stratum, with a great cross-course, and several small ones running north and south. A deep adit has been brought up to drain the mine, at a cost to the late adventurers of £12,000: an engine-shaft sunk 110 fathoms from surface, giving 60 fathoms of backs above the deep adit level. A great portion of this ground could be taken away at a tribute of 10s. in 12., within one month from the commencement of operations, which would very considerably assist the cost of the mine. In order that the workings should be fairly and regularly prosecuted, it is necessary that a steam-engine should be erected, which will prevent any delays at any season; it having been ascertained that in very dry summers and severe winters, operations have been suspended nearly three months in the year, but it is considered that the engine would not be required more than two months, on an average, during the year. The expense of this steam-power having been taken into consideration by the lord, he liberally reduced the dues to 1-20th.

It will be seen from the following reports, that this mine was abandoned by the late adventurers at the very time when good returns of tin were being made, but the water-wheel having been broken down, and the machinery generally not being in a fit state to work the mine, and the tin market being at that time very depressed, many of the shareholders declined to expend money in the erection of any new.

Tin and copper ores were sold during the last workings of the mine to an amount exceeding £100,000, which is sufficient to prove the character of the sett.

There is now left in the bottom of the 50 fathom level a large quantity of tinstuff already broken, with tramroad, waggon, miners' tools, and the bottom of a 14-inch plunger, which, with the counting-house, agent's house, material house, smiths' shop, and burning-house at surface, cannot be taken at a less value than £1000. The mine will be worked strictly on the Cost-Book Principle.

The present proprietors, in transferring the lease over to this company upon the following conditions, that they be paid 500 free shares of £2 each. The mine has been thoroughly inspected by several practical mining agents, and it is their opinion that **£3000 will be sufficient** for placing the mine upon a par with some of the neighbouring **dividend-paying mines**; see the following reports:—

Report of Captain WILLIAMS, *Plympton, Devon.*

SIR,—According to your request, I beg to send you my report of Bottle Hill Mine. I am of opinion that any company with a small capital, combined with good management, would, in a very short time, find this a good and profitable undertaking, as in taking a geological view of the mine and its neighbourhood, the observer is at once struck with its peculiar mining features; and, as a proof of its productive nature, it is only sufficient to know the amount of tin and copper produced, and principally from one lode, amounting to more than £100,000 worth, by modern miners, without referring to the ancients, who mined extensively here; the mine is in killas, of a very congenial nature, and within a quarter of a mile of granite on the east, into which the lodes are running. I am strongly of opinion that, by sinking the mine 20 fms. deeper, a good and profitable mine would be found; and, if I might express my opinion on this point, I would say that I believe, if a steam-engine were erected, the water drawn out, and the works prosecuted with vigour, there would be more than sufficient ore raised to pay the cost of the mine, and make good returns to the adventurers. I am your obedient servant,

RICHARD WILLIAMS.

Report of JAMES EDDY, *now working in the Devon Great Consols.*

SIR,—I worked in Bottle Hill Mine 13 years, and was there up to the stopping of the mine; and up to that time we continued to raise about 5 tons of tin per month. The greatest part of this tin was raised about Fizze's shaft. At that time I worked as a miner in the back of the 50 fm. level on tutwork, and, to the best of my knowledge, we had 3*l.* per fm. for stoping. This is a good tinny lode. The lode in the bottom of the 50 fathom level I consider to be worth £40 per fm. At the time the mine was stopped, neither the captain nor the men knew the value of the lode, until the lode went under the stamps, and we were all surprised when it was returned; but at this time the materials were all drawn from the bottom of the mine. The mine was, therefore, stopped in the face of a good course of tin. There is a quantity of tin stuff now lying underground, broke by myself and partners, which, I think, is worth at least £300, besides a tramroad, tram-waggon, bottom of a 14-inch plunger-lift, miners' tools, &c., worth more than £400. I believe Bottle Hill to be one of the best tin and copper mines in the west of England, if put to work and properly managed. I am, sir, your obedient servant,

JAMES EDDY.

Report of WILLIAM BARRETT, *Miner, Bottle Hill.*

SIR,—I worked as a miner at Bottle Hill Mine 20 years ago, and was there when the mine was stopped. At the time we knocked off working we were raising good quantities of tin, most of which was taken from Fizze's shaft. I was one of the last pare that worked in the bottom of the 50 fathom level, where there is a good tin lode, worth more than £30 per fathom, but if tin was selling at £50 per ton, I should think the lode would be worth nearly £50 per fathom. The back of the 50 was a good tinny lode, but not as rich as the bottom. There is a large quantity of tinstuff in the bottom of the mine which was never brought to surface, on account of the machinery breaking down, which was never again put in order, and the mine was stopped with the same. There is also in the bottom of the mine a tram-waggon, tramroad, and the bottom of a large plunger, besides a quantity of miners' tools.

Reports of CHARLES BLANCHARD, *who worked in Bottle Hill Mine for Thirty-five Years, and* JOHN FARLEY.

SIR,—We herewith beg to hand you a report of Bottle Hill Mine, having worked in her for many years—in fact, from the commencement of her last working by Mr. Hitchens, until she was stopped by Captain Williams. There are in Bottle Hill Mine three parallel lodes—viz.: a south lode, a middle lode, and a north lode. On the south lode there has been but little done in the deep adit, which is 60 fathoms deep. From this lode there has been a great quantity of both tin and copper returned, of good quality; some of the copper ore has made £17 per ton. There is a very kindly lode in the adit end now. The middle lode has been worked 50 fathoms under the deep adit. There is a sink in the bottom of this level about 4 feet deep, and the lode in this place is from 10 to 12 fathoms long—worth from £35 to £40 per fathom. There is also standing a piece of lode from 60 to 70 fathoms long, and from 10 to 12 fathoms in height, above the 50, and many pitches on this lode might be set out on tribute above the 50 fathom level at the present price of tin. There is a railroad in the 50 fathom level, upwards of 100 fathoms in length—a good pile of tinstuff broken, a tram-waggon, miners' tools, and a great part of a plunger-lift, worth at least £200, which could not be taken away, in consequence of the machinery breaking down and the water coming in. On the north lode very little has been done. This lode was cut in sinking Strode's engine-shaft, at nearly 40 fathoms deep. There have been some very good stones of tin broke on this lode, and it is worthy of a further trial—but little having been done, little can be said about it. During the last workings there was nearly £130,000 worth of tin and copper returned in this mine. Should you, or any other person, desire further information, we are willing to afford all we know about it. We are, Sir, yours, &c. CHARLES BLANCHARD,

Emerdon, Plympton St. Mary, Devon, Jan. 1, 1850. JOHN FARLEY, Sen.

Applications for shares to be made to the secretary, at the offices of the company, where every information may be had, and specimens seen; and to George Trickett, Esq., Post Office Chambers, Plymouth; and to Thomas Dunn, Esq., Tavistock, Devon, on or before the 15th day of July, 1850. EMANUEL BROWN, Secretary.

THE PATENT OFFICE AND DESIGNS REGISTRY,

No. 210, STRAND, LONDON.

INVENTORS will receive (gratis), on application, the OFFICIAL CIRCULAR OF INFORMATION, detailing the eligible course for PROTECTION of INVENTIONS and DESIGNS, with Reduced Scale of Fees.

Messrs. F. W. CAMPIN and CO. offer their services, and the benefit of many years experience, in SECURING PATENTS and REGISTRATIONS OF DESIGNS, with due egard to VALIDITY, economy, and dispatch—assisted by scientific men of repute.

Also, in MECHANICAL and ENGINEERING DRAWINGS, whether connected with Patents, Railways, or otherwise, by a staff of first-rate draftsmen.

Application personally, or by letter, to F. W. Campin and Co., No. 210, Strand (corner of Essex-street).

NATIONAL PROVINCIAL BANK OF ENGLAND,

112, Bishopsgate-street, London, June 18, 1850.—The Directors of the NATIONAL PROVINCIAL BANK OF ENGLAND hereby give Notice, that a HALF-YEARLY DIVIDEND, at the rate of 6 per cent. per annum, will be PAYABLE on the company's stock on and after the 18th July next, when the dividend warrants will be obtained at the Company's offices, 112, Bishopsgate-street, or at the different branches. The transfer books will be closed on and after Saturday, the 22d inst., until the dividend becomes payable. By order of the Court of Directors,

DAN. ROBERTSON, Agent and Manager.

STEAM TO INDIA AND CHINA, VIA EGYPT.—Regular

MONTHLY MAIL (steam conveyance) for PASSENGERS and LIGHT GOODS to CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG-KONG.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY

BOOK PASSENGERS and RECEIVE GOODS and PARCELS for the ABOVE PORTS by their steamers—starting from Southampton on the 20th of every month; and from Suez on or about the 10th of the month.

BOMBAY.—Passengers for Bombay can proceed by this Company's steamers of the 29th of the month, to Malta, thence to Alexandria by her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.

MEDITERRANEAN.—MALTA—On the 20th and 29th of every month. CONSTANTINOPLE—On the 29th of the month. ALEXANDRIA—On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th 17th, and 27th of the month.

For plans of the vessels, rates of passage-money, and to secure passages and ship cargo, apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

SOUTHERN AND WESTERN MINING COMPANY OF IRELAND.—[*Incorporated under Royal Charter*, 1847.]

Capital £150,000, in 10,000 shares of £15 each; deposit £2 10s. per share.—No call can exceed 10s. per share, and not more than £1 per share can be called up within any three months.

BOARD OF DIRECTORS IN IRELAND.

Major NORTH LUDLOW BEAMISH, K.H., Ballincurrig, County of Cork (chairman).
HORATIO TOWNSEND, Esq., D.L., Woodside, County of Cork.
JOHN CARMICHAEL, Esq., Riverstown House, County of Cork.
ROBERT BRISCOE, Esq., Fermoy, County of Cork.
FREDERICK BELL, Esq., Fermoy, County of Cork.
JOHN LITCHFIELD, Esq., Ballymaloo, Cloyne, County of Cork.
JOHN KENNY HERBERT, Esq., Mallow, County of Cork.
WILLIAM CHRISTOPHER DOWDEN, Esq., Bandon, County of Cork.
THOMAS HEWITT, Esq., Cork and London.
HENRY JOHN HEWITT, Esq., Sidney-place, Cork.
RICHARD BEAMISH, Esq., C.E., Cork.
WILLIAM J. TOMKINS, Esq., Cork.

SOLICITOR—THOMAS JAMESON, Esq., 4, South Mall, Cork.
SECRETARY—WILLIAM CONNELL, Esq., 80, South Mall, Cork.
BANKERS—The Provincial Bank of Ireland, Cork; the London Joint-Stock Bank, 69, Pall Mall.

In laying before the public a prospectus of the SOUTHERN AND WESTERN MINING COMPANY OF IRELAND, no lengthened statement is required to create an appreciation of the advantages derivable from the development of the mineral wealth of the Southern and Western Districts of Ireland, which the most eminent authorities acknowledge to equal, if not exceed, in metalliferous deposits, and in facilities for working, the most favoured mining districts of England.

It is a well-known fact, that most mines are, from their position, incapable of being worked without the aid of both steam and horse power, either of which unavoidably occasions a large outlay of capital and a heavy annual expense, and yet, notwithstanding these drawbacks, many of the Cornish mines are paying the adventurers an immense per centage on the capital invested.

The directors fully convinced, by the investigations of many scientific and practical men of the vast importance of these mines, not only purchased them at a cost of £20,000, but also went to the expense of obtaining a Charter from the Crown, so as effectually to secure the shareholders from all contingent liabilities.

This is the only Mining Company in the United Kingdom to which the privilege of a Charter has been granted, which frees it from the operation of the Joint-Stock Companies' Act. The Charter passed the Great Seal on the 18th of March, 1847, thereby forming the company into a Corporation, with power to work mines in the Counties of Cork, Kerry, Limerick, and Waterford, and limiting the liability of the shareholders to the amount of their shares.

The Company is not restricting to any one mine or any number of mines; but attention at present is confined to the Gurtivallig Mine.

The elevation of this mine above the sea level varying from 20 to 100 fms., affords opportunities of working effectively, by means of deep levels, and renders quite unnecessary the expensive auxiliaries of either steam or horse power, while the adits allow the water to flow from the mine, and at the same time the ore and waste to be trammed out to the dressing-floors, from which shipments are easily effected. These advantages are obvious, and equal a saving of from 20 to 40 per cent.

A deposit of £1 10s. per share has been paid, and a sum of £25,000 raised, with which the mine at Gurtivallig was purchased.

After the purchase for £20,000, there remained but £5000 of the deposit. The cost of the Charter, preliminary expenses, buildings, quays, floors, &c., absorbed the remainder, and made a call of 6s. per share necessary.

The prevailing panic at the time of the call was destructive to many of the shareholders, who were, therefore, unable to respond to it. The holders of 4000 shares did pay the call. Those who did not pay the call have surrendered their shares to the directors.

In order to raise funds not only adequate to recommence operations in a manner commensurate with the undertaking, but also to render the necessity of making any further call highly improbable, it is proposed to raise a sum of £10,000, so that the public have the advantage (in consequence of the above surrender) of purchasing shares at present at par—that is, at £2 10s. each—so as to raise the £10,000 without delay, and let the operations be recommenced at once.

The Board of Directors in Ireland are willing to allow the management to be in London, in the hands of the parties subscribing this capital, over which they may have the entire control.

REPORT.

Gurtivallig Mine is situated on the south shore of Bantry Bay, about two miles east of the Sheep's Head promontory, which divides Bantry Bay from Dunmanu's Bay, and opposite to and in the same locality as the celebrated mines of Berehaven, which yielded returns of copper ore to the amount of half a million sterling, and still continue to give a profit of from £40,000 to £50,000 per annum. Several large lodes of a promising character were discovered in the cliff at Gurtivallig, and before they could be properly worked it was found necessary to remove some thousands of tons of overhanging rocks with which two large pier walls were erected, and a convenient dressing floor made at its base, from which a deep adit cross-cut had to be driven upwards of 20 fms., in order to reach one of the east and west lodes. The shallow adit level has been driven on the course of the lode about 150 fms., and the deep adit 130 fms. In the shallow adit end west the lode is large, and composed of gossan, quartz, carbonate of copper, and yellow copper ore. In the same level east the lode (being intersected by a large caunter or oblique lode), presents a more decided appearance for producing large quantities of yellow ore, and is of the same character and description as the Berehaven lode—viz., large quantities of quartz, gossan, mundic, and stones of yellow ore near the surface. The lode in the deep adit level, east and west, is continuous in size, with well-defined walls and a regular underlie. The indications and appearance of the lodes as the ground was being explored were of the most promising character, and highly indicative of large mineral deposits; but, owing to the want of funds for carrying out the required explorations and developing its resources, the directors were obliged to postpone operations, and a valuable undertaking was thus suspended. In conclusion, I would remark that there are several large lodes, varying in width from 6 to 20 feet, and within a short distance of each other, they contain all the characteristics of the most valuable copper mines. By extending the deep adit levels east, a depth of about 70 fms. will be attained without any cost whatever for drainage, and with simple lifts of hand pumps the mine may be explored to a depth of 110 fms. from the surface. All preparatory operations are completed; railways laid down, dressing floors, reservoirs, inclined planes cut for shipping ore and landing materials, dressing houses, sheds, smiths' and carpenters' shops, ten excellent new houses built for the use of miners and workmen, a supply of materials on the spot, and operations may be resumed without delay. The capital now required would, therefore, be exclusively applied to the actual working the mine. The sett is from 2½ to 3 miles square, and held by lease under John Congreve, Esq., for a term of 32 years, the first six at 1-18th and the remaining 26 years at 1-16th dues or royalties; the strata of the district consist of clay slate and micaceous schist, with large elvan formations and quartz rocks. That this undertaking is of a *bonâ fide* nature, and a good investment for capital, the following fact speaks for itself—in the mere opening of the mine 87 tons of ore were raised, and shipped in ten hours.—WILLIAM THOMAS (superintendent of the mine): London, June 1.

Application for prospectuses to be made at the offices of Mr. T. A. Readwin, 2, Winchester-buildings, City, where samples of the ores and a copy of the Charter may be inspected daily, from twelve to four; or at Messrs. Child and Kelly, solicitors, Old Jewry Chambers; and Messrs. Keasley, 30, Regent-street, Waterloo-place, London.

London, June 7, 1850.

INDURATED AND IMPERVIOUS STONE, CHALK, &c.

—AGENTS, with capital, are WANTED in all TOWNS to SUPPLY (under British and Foreign Patents) the great demand for HUTCHISONISED MATERIALS—hard as granite, impervious to moisture, vermin, &c.; the cheapest and most durable for all buildings, hydraulic, paving, monumental and decorative work.—The profits are large.

Apply to HUTCHISON & CO., 140, Strand, London; or Tunbridge Wells, Kent, and Caen, Normandy, stating name, address, and capital at command.

N.B.—Houses cured of damp. The produce of soft stone quarries, chalk, plaster of Paris, wood, pasteboard, and all absorbent materials indurated to resist frost, vermin, &c. *LICENCES GRANTED.*

WILLIAM BROTHERTON & CO., Patent Oil Merchants

to the Queen, the Honourable the Board of Admiralty, the principal Steam Navigation and Railway Companies, Engineers, and Manufacturers, in the United Kingdom,

HUNGERFORD WHARF, CHARING-CROSS, LONDON.

W. BROTHERTON & CO. take the present opportunity of again bringing before the notice of the public their PATENT MACHINE and LAMP OIL, and, at the same time, thanking their friends for the liberal support and patronage they have received during the past four years. Their best thanks are also tendered to those practical engineers, and scientific gentlemen, through whose kind communications, upon lubrication and frictional resistance, they have been enabled to bring their PATENT OIL to a state of chemical perfection not previously contemplated.

The important properties of W. B. & Co.'s oil are the peculiar softness of its body, its limpidity under all ordinary temperatures, and its unctuous nature. Being of a non-drying quality, it produces a complete separation of the parts when in motion, thus becoming itself the working body, and preventing friction; its chemical purity is such that no oxidation takes place on the metals, or alloy forming the bearings; consequently those evils so perplexing to engineers, and so destructive in their tendency, are at once removed, and thereby the value of the oil more than saved.

W. B. & Co. consider it unnecessary to publish any of the numerous and flattering testimonials they have received; but they will at all times feel happy in giving every information on the subject, and in receiving any communication likely to further the object they have in view.

In calling the attention of the public to their Lamp Oil, W. B. & Co. would merely state, that after the most severe tests, it is proved to be superior to all other patent oils for brilliancy, and that its durability causes a saving of at least 25 per cent. in the quantity consumed.—*A liberal commission allowed to competent agents.*—May, 1850.

CONSIDERABLE SAVING IN FUEL.—IMPORTANT

IMPROVEMENT IN THE DOMESTIC COOKING STOVE.—This design has for its object an improved formation of the Oven of the Domestic Cooking Stove, in such manner that it shall be more quickly and readily heated and kept ready for use, than by the formation hitherto adopted. The improvement consists in a different adaptation of the flues round the oven. The latter is divided into two portions by a flue which passes between them, thus really forming two ovens. Supposing the fire-grate to be on the left side of the ovens, the fire keeps up a great degree of heat against the left side of the upper oven, but not sufficient to burn it, there being a space between opening to the flues; the current of flame and heated products of combustion then pass along the top of the upper oven, down its right-hand side, along its lower part, from right to left, being between the upper and lower ovens; down the left side of the latter, along its lower surface, from left to right, and up its right side, where it passes off into the chimney. By this arrangement it will be seen that the top, bottom, and both sides of both ovens are effectually open to the draft, and must become thoroughly heated in a very short period. The following few, from many, Testimonials bear witness to the thorough success of this simple but improved arrangement. JOSIAH SIMS, Inventor and Proprietor, Tavistock. *Licenses granted.—All orders promptly executed.*

TESTIMONIALS.

Mr. SIMS,—I have great pleasure in bearing testimony to the great improvement made in my stove by your Improved Oven being added to it: the time required for baking being less than half, and can clearly say the saving in fuel is full 50 per cent. I shall be glad at all times to show it to any persons desirous of seeing it.

THOMAS NICHOLLS, Bedford Iron-Works, Tavistock.

Mr. SIMS,—In reply to your question as to the answering of, and benefit derived from, the alteration of my oven to your principle, I beg to say, that we find that one-half the coals will dress a large joint better and quicker than on the old plan: the oven I previously had was considered a very good one. I must also add, that it may be regulated to the greatest nicety by attention to the dampers, so as to suit poultry, &c.

J. L. COMMINS, Brook Cottage, Whitchurch.

Mr. SIMS,—From the experience I have had from putting in your Improved Registered Stoves, and seeing a considerable saving of fuel, I have gone to the expense of having one for my own use, and find a saving of one-half the coals.

RICHARD H. YELLAND, Builder, Tavistock.

Mr. SIMS,—I am proud to be able to say that your Improved Register Stove sent me answers every thing as you represented: and I am at a loss to know how such a simple, but effectual, improvement should have been so long dormant. W. NEWTON, Mill-hill.

Mr. SIMS,—I am fully convinced of the advantage derived from your Improved Cooking Stove, and have found the meat, bread, &c., for my family has been cooked cheaper and better than by sending it to a common oven, and could, therefore, most confidently recommend it to the public, as the most economical that has ever come under my notice.

WM. JOHN JAMES, Tin-plate Worker, Exeter-street, Tavistock.

Mr. SIMS,—Having been informed by many respectable inhabitants of this neighbourhood (Tavistock), that the improvement made in your Registered Stoves has surpassed their expectations, I immediately availed myself of getting one on a large scale to prove the experiment effectually; and I am proud to add my testimony to the very unexpected results I have experienced, both in the saving of fuel as well as its efficiency; therefore, I feel no hesitation in asserting that it behoves every one that has the means of providing the remedy (which I must say is inexpensive in itself, and a decided improvement to any yet before presented to the public). J. CARPENTER, Anderton Cottage.

IMPROVED WIRE ROPE.—The UNDERSIGNED, in

tendering their best thanks for the liberal support they have hitherto received, respectfully solicit attention to the vast IMPROVEMENTS which new machinery and attention has enabled them to effect in the MANUFACTURE of ANDREW SMITH'S PATENT WIRE ROPE, more particularly his FLAT ROPE, which they can now produce of a description far superior to any previously offered to the public.

WILKINS & WEATHERLY.

Patent Wire Rope Works, 39, High-street, Wapping, London.

IMPROVED LIFTING JACKS,

MANUFACTURED BY

W. AND J. GALLOWAY,

PATENT RIVET WORKS,

MANCHESTER.

IMPROVED RATCHET JACK.

BALEY'S PATENT LIFTING JACK.

*** The attention of parties who employ

Lifting Jacks,

is respectfully requested to the superiority of those annexed, over those hitherto in use.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

IMPORTANT TO RAILWAY COMPANIES, CARRIERS, AND OTHERS.

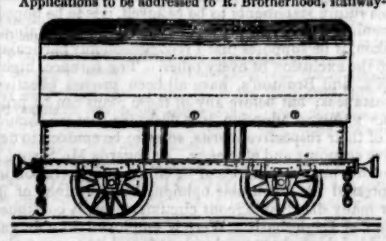
ROWLAND BROTHERHOOD'S TILT, for COVERING

RAILWAY TRUCKS, WAGGONS, &c.

This invention allows of trucks or waggons being covered or uncovered with surprising ease and facility, so that one porter can uncover two trucks in the space of a minute, and two can re-cover both in the same time. It allows of a small portion, or the whole area of the truck, being uncovered, and affords great facility for loading and unloading, and protecting the goods in these operations, as well as in the course of transit. It can be secured by locks and keys, thus rendering merchandise secure from plunder. It is cheap in its construction, can be applied to railway trucks and waggons generally, and is easily attached or detached. It runs smoothly through the air at high speeds, and against head winds.

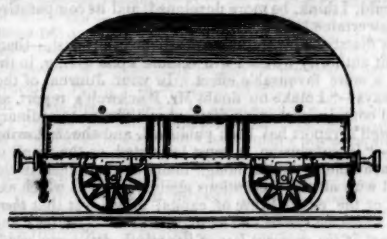
This Tilt has been in use on different parts of the broad guage during the winter, and has been found to work remarkably well in the severest weather. Experienced and practical persons, who have the management of large goods' stations, and have seen these tilts in working, and who know the great wear and tear of cloths, tarpauling, &c., and the inconvenience of existing modes for goods' covering, are of opinion that these Tilts will be of great utility in railway service. The patentee is himself prepared either to construct or, on moderate terms, to license parties to construct his patent Tilts.

Applications to be addressed to R. Brotherhood, Railway-Works, Chippenham, Wilts.



No. 1.

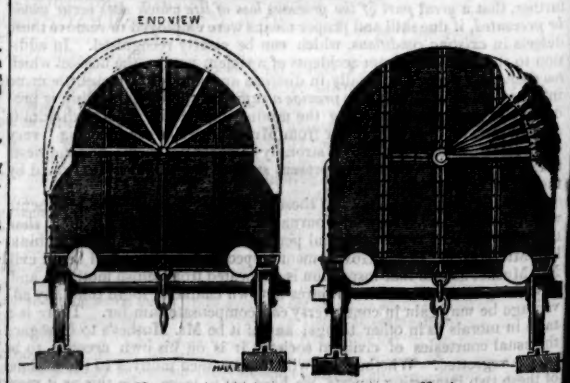
This shows the side elevation of a waggon, with the tilt closed and fastened down.



No. 2.

This shows the tilt as applied to a box, waggon, or long-sided truck, with longitudinal bearers.

END VIEW



No. 3.

This is an end elevation of the same on a larger scale, showing the pin and fan which supports and carries over the longitudinal bearers to which the cloth is attached, and which when open lies compactly folded along the side of the truck, leaving the whole area of the truck open for receiving or discharging its contents by crane or otherwise.

No. 4.

This is an end elevation of the same, showing the tilt partially closed, so that the whole or any portion of the truck can be open for pleasure, affording means of protection to part of the merchandise, whilst the other is being loaded or unloaded, or the truck may be used entirely uncovered, without the tilt in the least interfering.

The tilt is applied to box, or low-sided trucks, with curved longitudinal bearers.

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